

# TECHNOLOGY

REVIEW *November 1952*



# technology review

Published by MIT

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# *pioneers in precision*

## **Lear, Incorporated**

Manufacturers of Precision Engineered Products,

Lear has pioneered in the miniaturization of aviation instruments since 1930.

Lear designed and produced automatic pilots have been accepted for use in jet fighter planes as well as in commercial aircraft for single engine or multi engine airplanes. The Lear Automatic Pilot and Approach Coupler permits safe landings despite extreme weather or visibility conditions.



## **Miniature Precision Bearings**

incorporated, are the originators and pioneer manufacturers of radial ball bearings in miniature sizes. For and with Lear, **MPB** designed the first miniature flange bearings and has supplied many thousands of this and additional types.

A pioneer in other designs and dimensions now being internationally standardized, **MPB** has also originated many precision manufacturing techniques. High speed bore grinding was first explored and finally perfected in this plant. For nearly ten years, this recently publicized method has been standard practice at **MPB**. In fact, the original concept of practically every development in this field has been by **MPB**.

Regularly supplied in more than 120 types, sizes, and materials, from 1/10" to 7/16". Special designs are supplied where specifically indicated. They are fully ground, lapped, honed, and/or burnished to ABEC 5 tolerances or better.

**MPB** ball bearings have been installed in more than a million precision mechanisms. Design engineers are assured of full cooperation. Write, requesting Catalog 52B—shows complete range and selection data—engineering sheet TR 11

*Quality improvement, continued thru an extensive expansion program has prompted a demand greater than ever. Enlarged facilities however, and newest exclusive processes will soon enable us to serve you better than ever.*

## **Miniature precision Bearings**

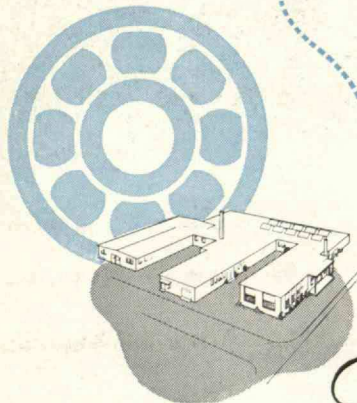
Incorporated

Keene, New Hampshire



*"Pioneer Precisionists to the World's foremost instrument Manufacturers"*

**save  
space  
weight  
friction**





# Catching fish with ground glass

Your ultra-modern fiber glass fishing rod, like the familiar steel and bamboo types, depends on grinding for the "feel", balance and springiness that make it a real "precision fishing instrument."

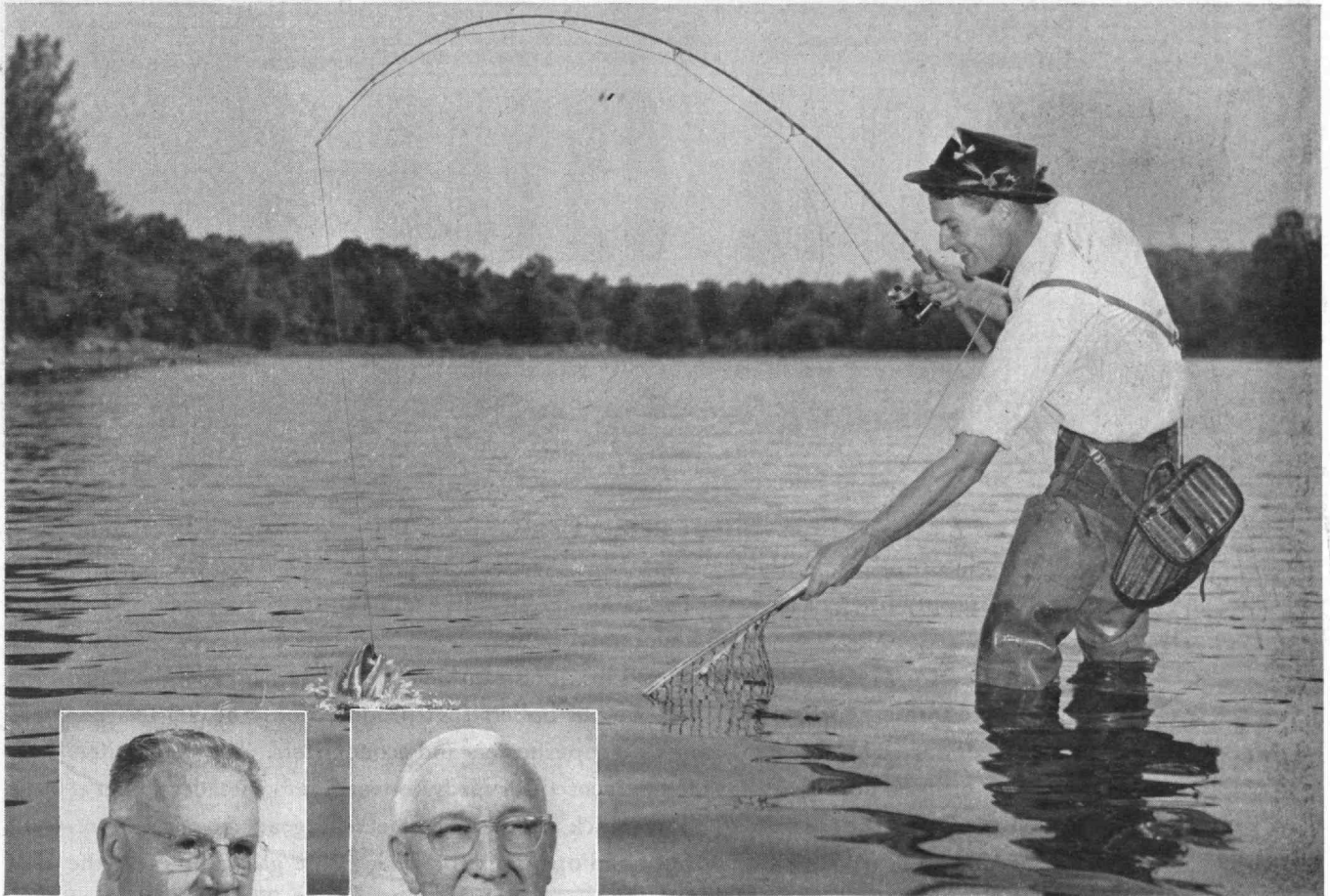
One type of glass rod contains over 850,000 microscopic glass strands, bound together by heat. It is ground to a pre-determined taper—accurate to .001 inch—with a Norton CRYSTOLON grinding wheel in a centerless grinder. Another type is precision-finished with Behr-Manning coated abrasives.

As with fishing rods, grinding is essential to the manufacture or maintenance of every man-made product. And as the world's largest manufacturers of abrasives and abrasive products for every grinding and polishing operation, Norton and Behr-Manning serve all industry by the product-development that helps improve other products.

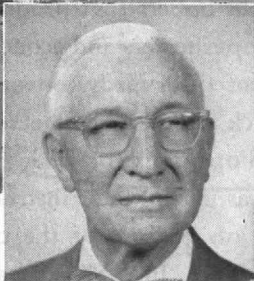
*NORTON makes abrasives, grinding wheels, pulpstones, refractories, grinding and lapping machines, non-slip floors, Norbide grain and molded products. Norton Company, Worcester 6, Mass.*

*BEHR-MANNING makes abrasive paper and cloth, oilstones, abrasive specialties, Behr-Cat brand pressure-sensitive tapes. Behr-Manning Corporation, Division of Norton Company, Troy, New York.*

**Plants, Distributors and Dealers the world over**



COLIN A. ROSS, packaging development engineer at Behr-Manning for 23 years, has made many valuable contributions to modern "Service Packaging" and labelling of coated abrasives.



CHARLES J. HUDSON is chiefly responsible for the outstanding excellence of Norton's quality control. Now in his 34th year at Norton, he is a recognized authority in his field.



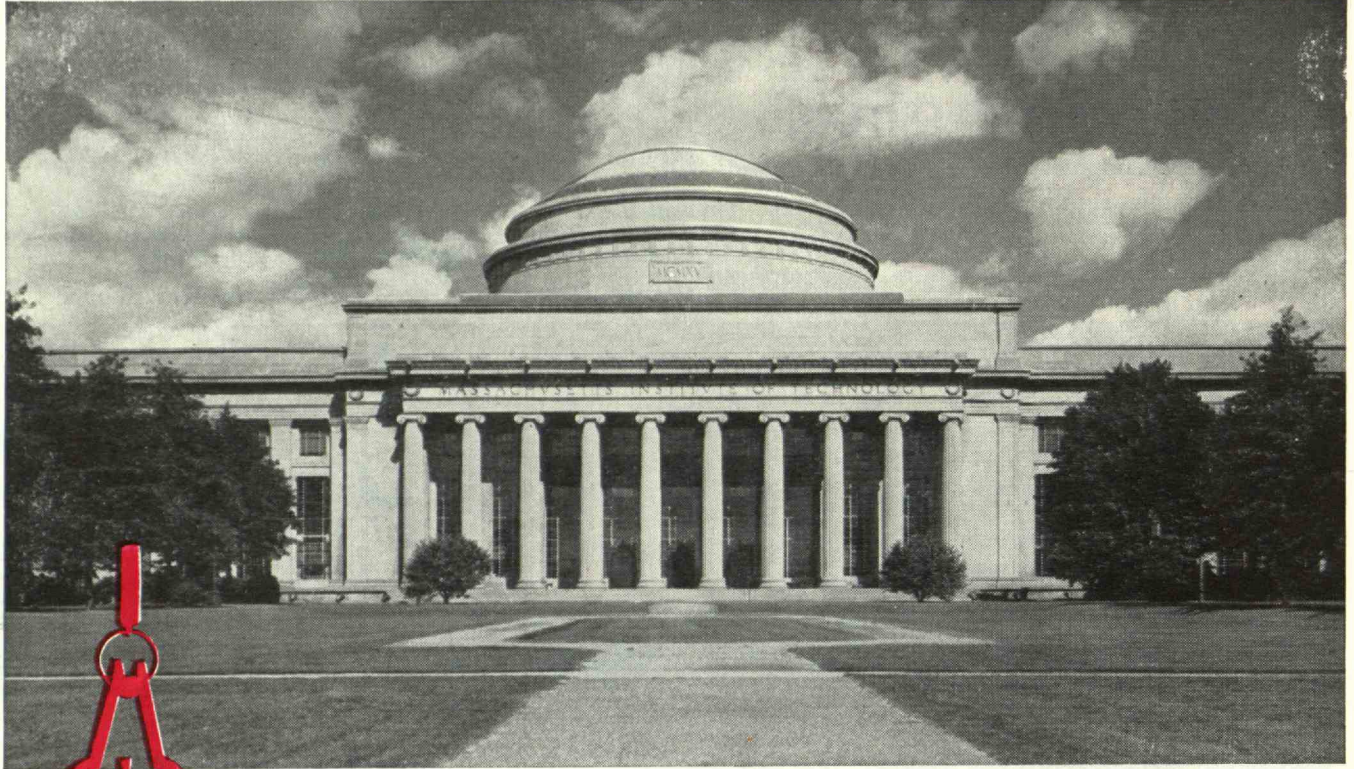
*Making better products to make other products better*

# NORTON • BEHR-MANNING

THE TECHNOLOGY REVIEW, November, 1952, Vol. LV, No. 1. Published monthly from November to July inclusive at Emmett Street, Bristol, Conn. Publication date: twenty-seventh of the month preceding date of issue. Annual subscription \$3.50; Canadian and Foreign subscription, \$4.00. Entered as second-class matter December 23, 1949, at the Post Office at Bristol, Conn., under the Act of March 3, 1879.



# M.I.T.,



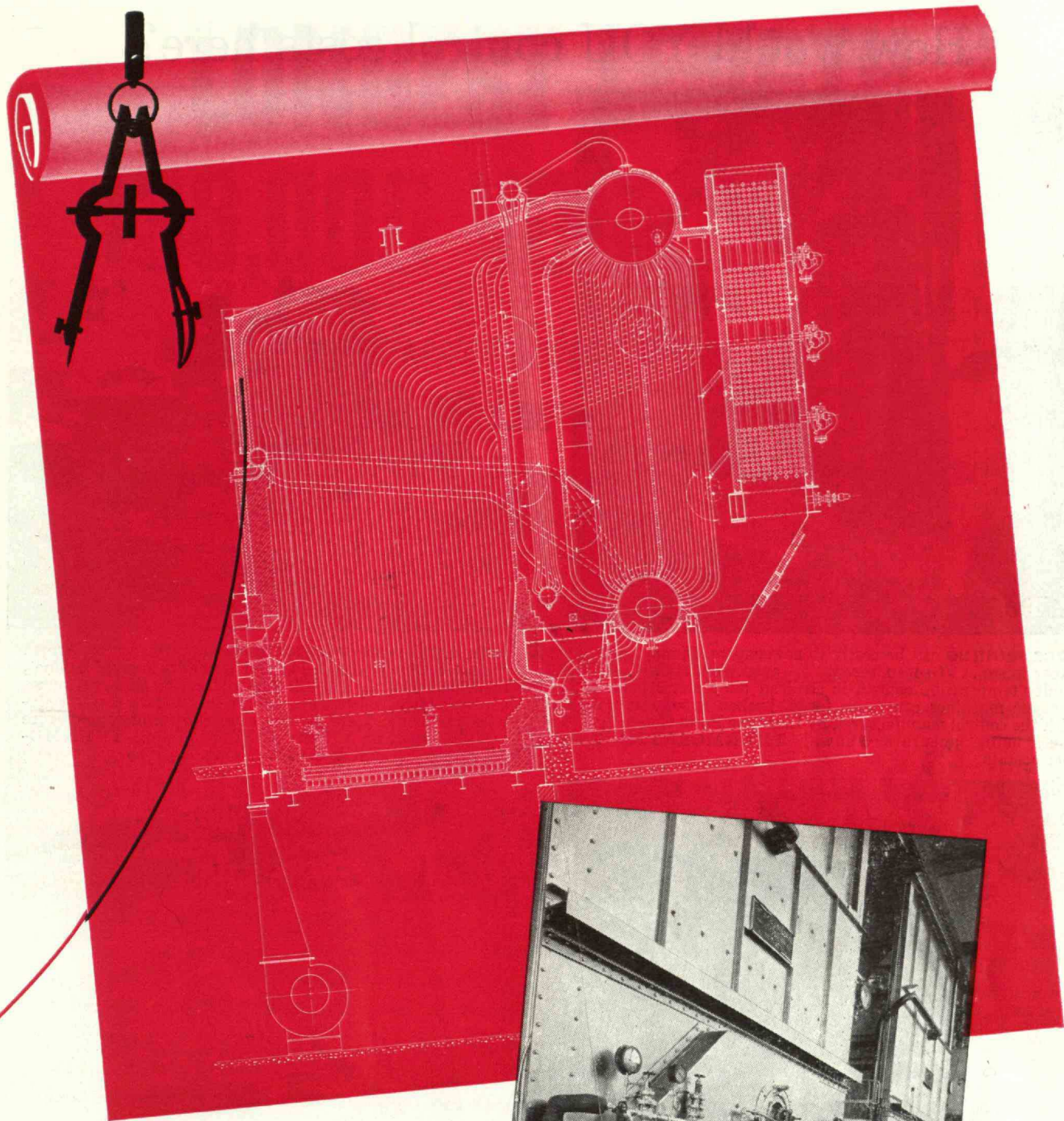
AT THE MASSACHUSETTS INSTITUTE OF TECHNOLOGY, where sound engineering principles are taught, two Wickes Steam Generators were selected to supply heat for several new buildings including the Hayden Library and Sloan Metals Research Laboratory. The Wickes Boilers, which were custom-engineered for M.I.T., produce 160,000 lbs. of steam per hour. They occupy the same space formerly occupied by the two old boilers that produced only 40,000 lbs. per hour. They are equipped with superheaters and economizers. The new boilers are oil-fired at present but are engineered for ready conversion to spreader stoker if desired. They are designed for quick steaming to meet emergency power requirements and are fitted with thermowells and openings for taking flue gas samples so the students at M.I.T. can run boiler tests as part of their instruction. The installation of these boilers, an extremely difficult job because of the close erection tolerances, was handled by Flagg, Brackett & Durgin, Inc., Wickes' agents in Boston. ✓ ✓ ✓

Wickes can fill your requirements for steam generators up to 250,000 lbs. per hour and 1000 psi.—all types of multiple drum boilers adaptable to any standard method of firing; oil, gas, underfeed or spreader stoker. Write today for descriptive literature or consult your nearest Wickes representative.

RECOGNIZED QUALITY SINCE 1854

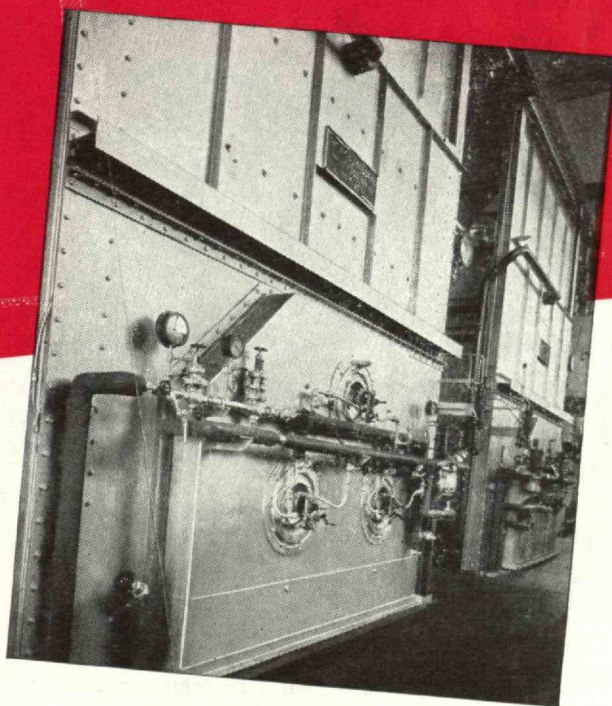
THE TECHNOLOGY REVIEW





*ABOVE: Blueprint diagram of one of the Wicks Steam Generators at M.I.T.*

*RIGHT: View showing the two Wicks Boilers installed in the power plant at M.I.T.*



# WICKES

THE WICKES BOILER CO.

DIVISION OF THE WICKES CORPORATION • SAGINAW, MICHIGAN

SALES OFFICES: Atlanta • Boston • Buffalo • Chicago • Cincinnati • Cleveland • Denver • Detroit • Greensboro, N.C. • Houston • Indianapolis • Los Angeles • Memphis • Milwaukee • New York City • Pittsburgh • Portland, Ore. • Saginaw • Springfield, Ill. • Tampa, Fla. • Tulsa • Washington, D.C.



# How would YOU control costs here?

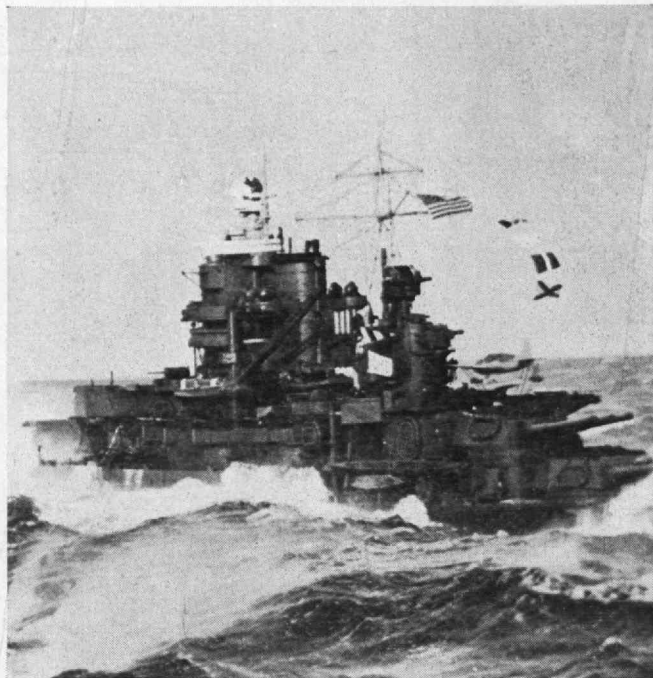


**POOR PRINTING** can be costly to newspapers. It may cause paper waste . . . free ad repeats . . . even circulation losses. Faulty temperature control in the lead alloy metal pots of linotype machines can cause fuzzy, broken type. But not with the control manufactured by Linotype Parts Company, Inc., using accurate Fenwal THERMOSWITCH® thermostats.

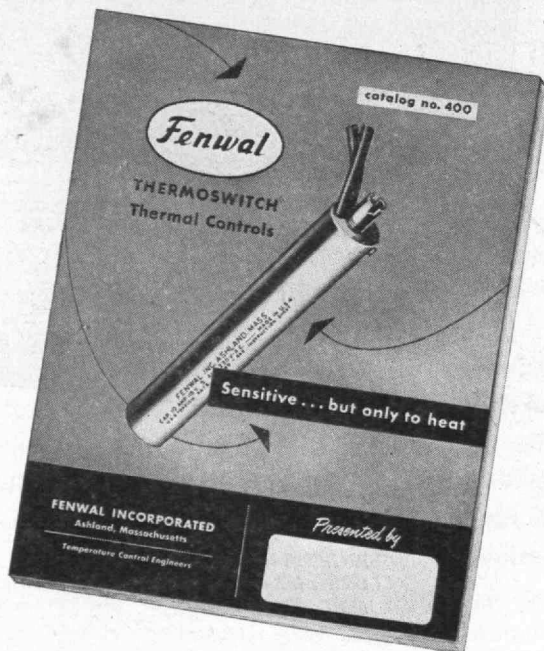


**A FENWAL THERMOSWITCH CONTROL\*** may cut your costs, too. Its external, single-metal shell expands or contracts *instantly* with temperature changes, making or breaking enclosed electrical contacts. Compact, highly resistant to shock and vibration, Fenwal THERMOSWITCH units have solved hundreds of otherwise costly problems.

\*Junction Box Type Illustrated.



**HIGH CORROSION SPECIFICATIONS** must be met by Armed Forces products. A salt-fog and humidity testing cabinet, made by Industrial Filter & Pump Mfg. Co., Chicago, makes sure corrosion resistance specs are met before costly deliveries are made. Tests involve close control of temperature . . . achieved by a Fenwal Junction-Box THERMOSWITCH thermostat, in each cabinet.



**SEND FOR THIS NEW CATALOG** for complete explanation of the unique THERMOSWITCH unit. Also ask for more detailed, illustrated discussions of the problems above. Fenwal engineers will be glad to help you solve your temperature control problems involving heat, humidity, radiant heat, pressure and other variables. Write Fenwal, Incorporated, 911 Pleasant Street, Ashland, Massachusetts.



## THERMOSWITCH®

Electric Temperature Control and Detection Devices

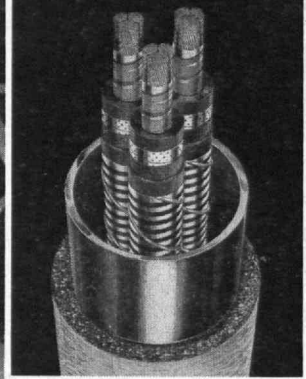
**SENSITIVE . . . but only to heat**

# LONGEST LENGTH 138,000 VOLT CABLE!

*6800-ft. Compression Cables without Splices built  
by Phelps Dodge for service under N.Y. Harbor*



Cross section points up  
heavy-duty construction



- Part of manufacturing process shows king-size spool needed to impregnate this long length. Each reel was specially made to hold entire 6800-ft. length.

**Consolidated Edison's unusual  
underwater installation uses  
record-length conductors for two  
pipe-type feeders, each consisting  
of three 1,500,000-cm  
compression cables, between  
Brooklyn and Staten Island**

As a result of years of pioneering research and experience in handling the "tough" jobs, Phelps Dodge was in a position to manufacture the special underwater cables needed to integrate Con Edison's new Staten Island affiliate with its main system.

For both economy and ease of its installation, Con Edison wanted each cable made in a continuous 6800-ft. length—longest ever specified. At present the cables will operate at 27 kv, but are designed for ultimate operation at 138 kv.

Waterproof polyethylene sheath was used to give the insulation extra protection from moisture and damage during shipment and installation. This was important because it was expected that the cables might be exposed for a considerable time during the long pull into the pipes buried in the Narrows at the entrance to New York Harbor. The sheath also provides for additional safety if, at any time after installation, the pipes were to be damaged and water find its way into the pipes.

***PHELPS DODGE COPPER PRODUCTS***  
**CORPORATION**





## *17 Years of Prize-Winning Performance*

To paraphrase a well-known quotation,  
 "Old HRO's never die!" Nor, may we hasten to add, do they "fade away."

In 1934, the year he got his amateur license, Gerard de Buren, HB9AW (Geneva), FP8AW (St. Pierre and Miquelon), purchased an HRO. He's still using it with prize-winning results. In 17 years, his HRO has helped him win one amateur award after another. Just this year, on St. Pierre and Miquelon Islands, he worked 1285 stations in 53 countries in 35 days!

Enduring performance like this is built into every National product.



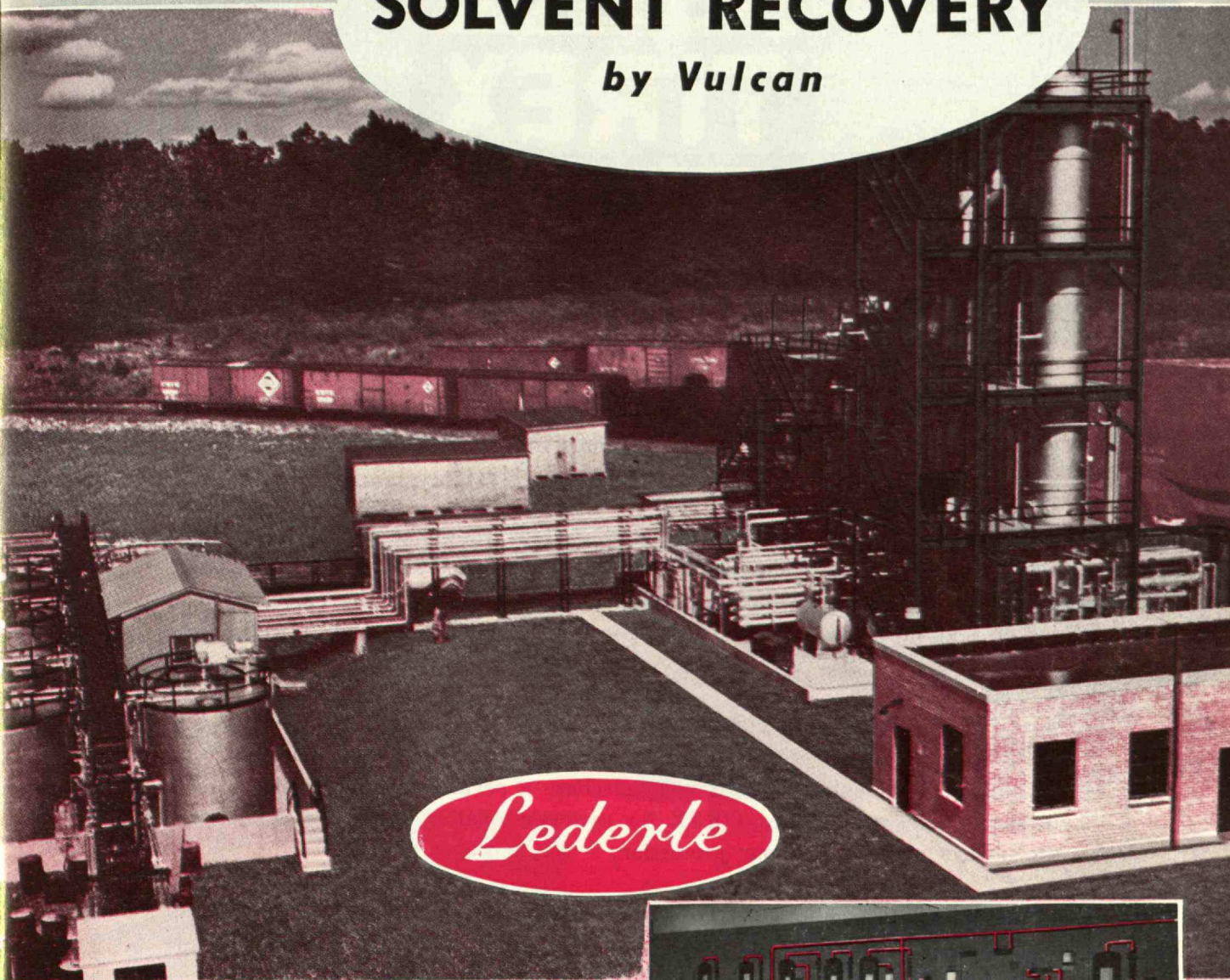


# *Aureomycin*

and efficient

## **SOLVENT RECOVERY**

*by Vulcan*



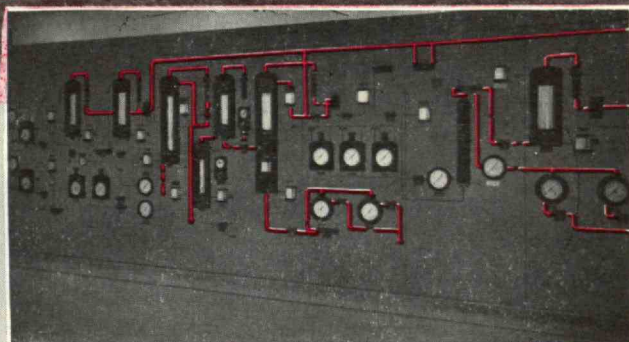
*Lederle*

In the big new aureomycin plant of Lederle Laboratories Division of the American Cyanamid Company at Pearl River, N. Y., solvent recovery is vital. Solvents must be recovered for reuse in better than 99% purity if the process is to be economically feasible.

Vulcan in cooperation with Lederle designed a complete unit for recovery of the many solvents used. Vulcan also supplied all equipment and materials and supervised construction.

Five separate feed streams are handled in four distillation trains consisting of seven towers. Operating control of the unit is entirely automatic and is regulated from a graphic panel in the control house. Complete flexibility accommodates wide variations in flow rates and compositions of the various feed streams. Process alterations are thus possible without major changes in the solvent recovery unit.

The result? Less cost, less time lost in turning out the product.



# **VULCAN** | CINCINNATI

*The VULCAN COPPER & SUPPLY CO.,*

General Offices and Plant, CINCINNATI 2, OHIO

NEW YORK    BOSTON    PHILADELPHIA    SAN FRANCISCO  
VICKERS VULCAN PROCESS ENGINEERING CO., LTD., MONTREAL, CANADA

DIVISIONS OF THE VULCAN COPPER & SUPPLY CO.:

VULCAN ENGINEERING DIVISION

VULCAN MANUFACTURING DIVISION

VULCAN CONSTRUCTION DIVISION

VULCAN INDUSTRIAL SUPPLY DIVISION







You will always win by using TIREX portable cords and cables. When you "write in" TIREX on your requisitions for portable cords and cables you vote for top-quality, long-life, and trouble-free service.

Those who buy and use TIREX tell us they like the tough TIREX neoprene armor. It provides the kind of wearability and snagproof service their operations demand. They are more than satisfied too with the smooth, dense jacket that is a product of the **cured-in-lead process** used on all TIREX cords and cables.

Since TIREX is oil, acid, alkali and flame resistant, it will help to curtail your maintenance costs and will postpone the day of your portable cord or cable replacement. Whenever you purchase a portable cord or cable be sure to specify and get Simplex-TIREX for economy, quality, and satisfaction. They are always marked for your protection.

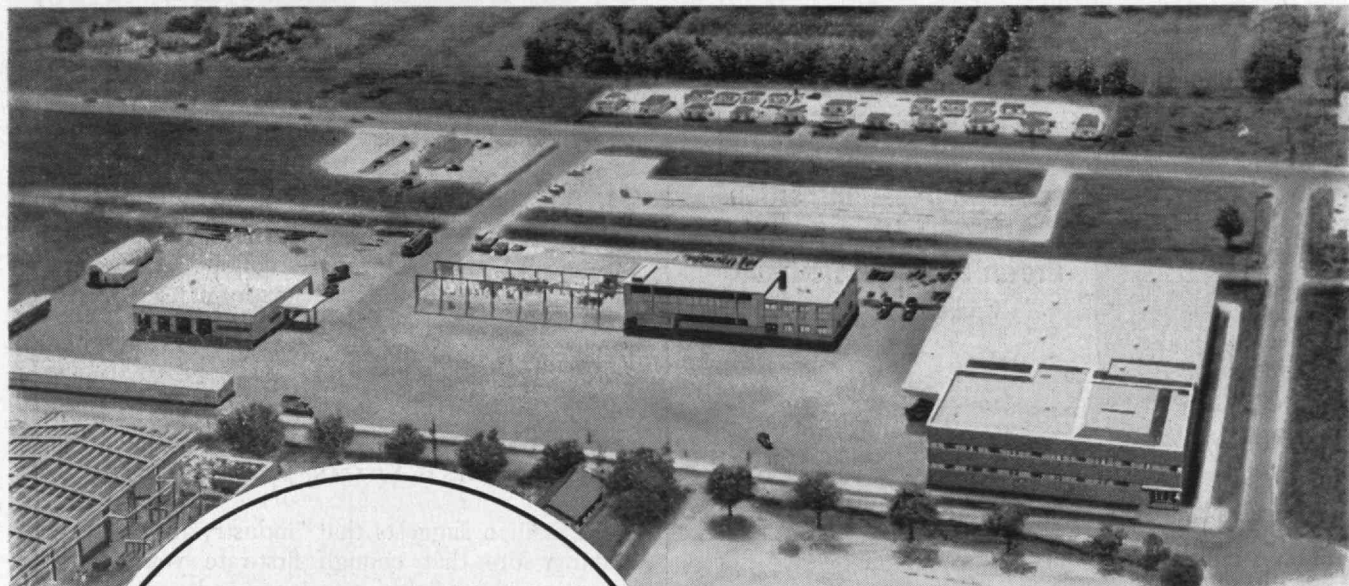
TIREX is made in a wide range of sizes and types from a single-conductor #18 cord for 300 V.W.P. all the way up to 3-conductor Type SH-D cable for voltages in excess of 10,000 V.W.P.

SIMPLEX-TIREX

NEOPRENE ARMOR

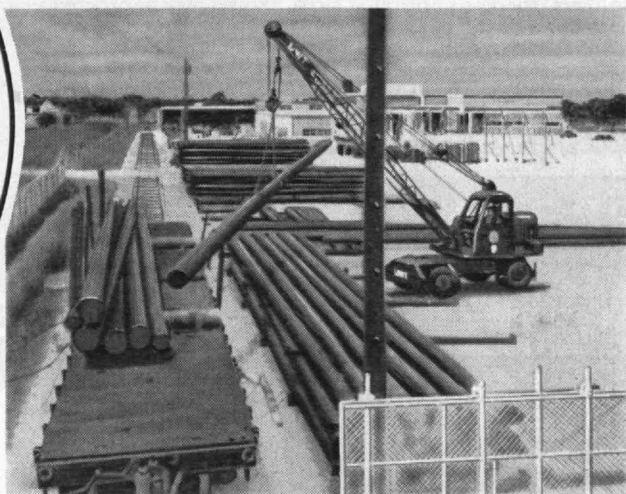
# SIMPLEX TIREX

SIMPLEX WIRE & CABLE CO., 79 SIDNEY ST., CAMBRIDGE 39, MASS.



*Overall View of the New Service Center*

# SERVICE CENTER *for a* SERVICE COMPANY



*Newest in materials handling design throughout*



*Headquarters for maintenance, purchasing, stores and stores accounting of the Beaumont electric transmission and distribution division*

The construction of this new Service Center at Beaumont, Texas, is one of many projects undertaken by Stone & Webster Engineering Corporation for Gulf States Utilities Company.

The new facilities include unloading dock and railroad spur, specially constructed yards for heavy equipment storage, the office building with auditorium and kitchen, the storehouse, a substation, garage, and paint shop.



## STONE & WEBSTER ENGINEERING CORPORATION

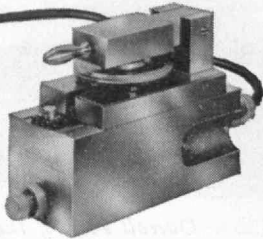
A SUBSIDIARY of STONE & WEBSTER, INC.



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speed multiple inspection  
with  
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Equipment**




**H**ERE'S how you can get faster, more accurate gaging of small parts — at low cost. Special gaging fixtures, custom-built by Brown & Sharpe, in combination with Brown & Sharpe Electronic Amplifiers, check all critical dimensions quickly, to tolerances of .00001". Applicable to gaging thickness, length, angle, parallelism, diameter, taper, or combinations of

several dimensions. If desired, fixtures may be ordered for use with your present Brown & Sharpe Amplifiers. For details, write Brown & Sharpe Mfg. Co., Providence 1, R. I., U. S. A.

*We urge buying through the Distributor*

**BROWN & SHARPE** 

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*for Special Purpose TUBES*

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| <input type="checkbox"/> Rugged         | <input type="checkbox"/> Transmitting      |
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Raytheon has designed and produced millions of such tubes — has the specialized technical skill and resources to meet your needs. Over half a million Raytheon Subminiatures are carried in stock. 400 Raytheon Special Purpose Tube Distributors are ready to serve you. Application engineering service at Newton, Chicago and Los Angeles.

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*Excellence in Electronics*

*Special Tube Section*

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## THE TABULAR VIEW

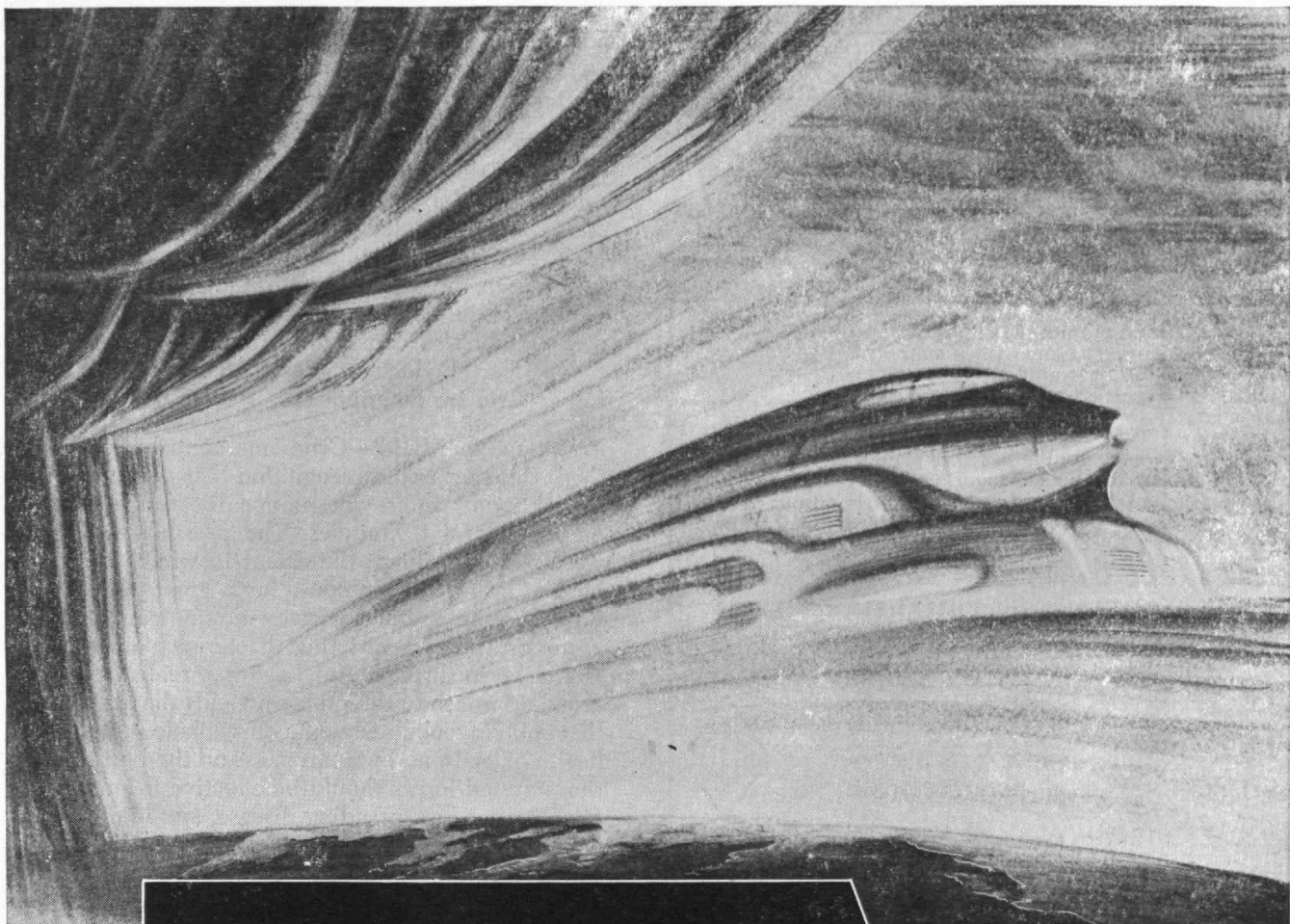
**Partnership for Progress.**—With expenditures for the current year amounting to some three billion dollars, scientific research has indeed become "big business." Moreover, properly conducted research is undoubtedly one of the mainstays of national defense, and therefore, one may argue, its continuance would be inexpensive at almost any price which does not wreck our national economy. Yet we cannot afford to waste our effort; indeed, we must husband all of our resources for maximum effectiveness, as Technology's President, JAMES R. KILLIAN, JR., '26, points out (page 23).

Dr. Killian suggests that "industry has a stake in making sure that enough first-rate young people move into these fields" of science and engineering to meet the nation's legitimate man-power needs. A total of about 125,000 scientists and engineers now carry the research load in the United States but the importance of their work is far beyond that which this relatively small number would suggest. Encouragement for the training of future scientists and engineers is to be derived from the fact that, through provision of fellowships, grants-in-aid, and similar support, industry has already made it possible for "our privately financed and endowed institutions to survive the debilitating disease of inflation." Yet universities are able to support only 5 per cent of today's current research budget in contrast to 15 per cent of the nation's research expenditures as of two decades ago. President Killian's article, originally delivered as an address before a convention of Heating, Piping, and Air Conditioning Contractors, concludes with a plea "for increasingly close relationships between industry, government, and education."

In extracts from the President's Report to the Corporation (page 34), this issue of The Review also contains another major contribution from the pen of Dr. Killian.

**Size No Virtue.**—"Bigger and better" is an old American slogan in which, all too frequently, the greater share of emphasis is associated with the first "B." But bigness is not necessarily a virtue and may even be a serious detriment, as FREDERIC W. NORDSIEK, '31, points out (page 27). In fact, in a highly technological society, substantial deviation from the median value (whether on the large, or small, end of the frequency distribution curve) is accompanied by a certain degree of inconvenience which can, and sometimes does, reach devastating proportions. Mr. Nordsiek takes pains to show that the outsize man is a victim of modern technology, and that his clothing, housing, transportation, and even occupation, may all be substantially affected by the economics of mass-production techniques.

For the most part limiting his observations to the effects of supply of clothing, Mr. Nordsiek cites difficulties of providing, from stock, wearing apparel for the huge, or the diminutive, individual. Clothing sup-  
(Concluded on page 12)



## BEYOND THE HORIZON....

Designers are seeking new alloys from the metallurgist in order to develop higher speed transportation.

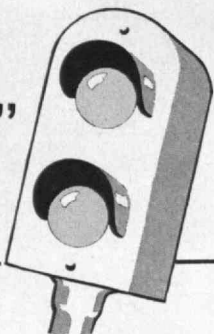
Higher speed calls for materials having greater strength in lighter sections, often with little or no sacrifice in toughness. Molybdenum contributes vital properties to better alloys which will certainly be developed for the future.

Climax furnishes authoritative engineering data on Molybdenum applications.

**Climax Molybdenum Company**  
500 Fifth Avenue • New York City 36 • N.Y.



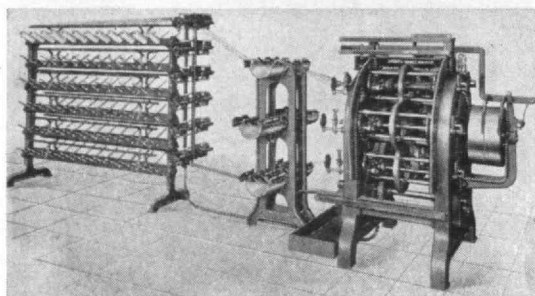
## Put An End to "STOP AND GO" PRODUCTION!



Your machine output, like the flow of traffic, can be *speeded up!* Faster movement to lower unit-production costs, is *simplified* with new, improved H-D twisters, ropers, layers, bunchers, stranders! Take for example, the new H-D 10" x 8" Former-Twister double head. It produces 15,000 feet per hour per machine on work being closed with 12 turns per foot. Typical of the high hourly output of all H-D machines. Let our engineering department show you how YOU benefit. Get our bulletins — TODAY.

**HASKELL-DAWES MACHINE CO., INC.**

2231 E. ONTARIO ST., PHILADELPHIA 34, PA.



CREEL STOP  
MOTION TANK  
10" x 5" SIX FLYER

**Fewer  
Parts  
make easy  
assembly**

Simple construction, fewer parts make assembly and disassembly easy — also mean longer life.

### **CURTIS UNIVERSAL JOINTS**

Simple construction is not the whole story. A combination of modern design, wise choice of alloy steels, with a special heat treatment for each part, give greater strength with less weight. And you can depend on Curtis catalog ratings — they are based on hundreds of actual tests.

#### **ONLY CURTIS OFFERS ALL THESE ADVANTAGES**

**Availability** — 14 sizes always in stock.

**Simplicity** — fewer parts, simpler construction.

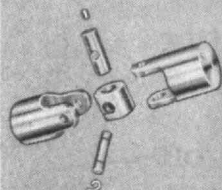
**Government Tests** — complete equipment for government tests in our plant.

**Write today for free engineering data and price list**

**CURTIS UNIVERSAL JOINT CO., INC.**

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As near to you as your telephone



**A MANUFACTURER OF UNIVERSAL JOINTS SINCE 1919**

## THE TABULAR VIEW

(Concluded from page 10)

ply for the outside person becomes so difficult and uneconomical a problem, where large masses of persons are concerned, that the armed forces now ruthlessly exclude from military service warriors who may be oversize, quite in contrast to the practice in earlier periods of individualized combat. From Mr. Nord-siek's study also comes an interesting discussion of the manner in which size designations of men's wear-ing apparel are determined.

**Menace or Myth?**—Gruesome contribution to to-day's thinking is the recognition that warfare of the future might inflict international carnage through bacteriological techniques. The possibility of germ warfare is one thing; the extent to which Leeuwen-hoek's "little beasties" could lay a great nation prostrate is quite another. Perhaps no one can say, with accuracy, how devastating bacteriological warfare would be in surprise attacks. But a realistic and rational approach to the problem yields the satisfaction that public enlightenment, surveillance by public health officials, and preparedness on the part of a nation's armed forces should be effective in preventing attacks aimed at spreading disease, and in effectively combating any epidemics which might take hold. Bacteriological warfare is definitely not a myth, as JAMES A. TOBEY, '15, points out (page 31), but neither is it a cause for undue hysteria. Dr. Tobey received the S.B. and Dr.P.H. degrees from M.I.T. in 1916 and 1927, respectively, the LL.B. degree from Washing-ton Law School in 1922, the M.S. degree from the American University in 1923. To his outstanding career of service in the broad field of public service, Dr. Tobey has recently had the distinction of serving on active duty in Korea as Colonel with the Army Medical Service. Dr. Tobey's presentation in this issue of *The Review* is, in part, a result of his Army contacts, and gives assurance that the problem is receiving serious study.



On July 5th we celebrated our 35th Anniversary. Since the founding of our company, we have specialized in industrial construction, and have executed over 1000 contracts for leading industrial companies. In recent years, 60% to 70% of our business has come from clients for whom we have previously built—evi-dence of work well done.

### **W. J. BARNEY CORPORATION**

Founded 1917

101 Park Avenue, New York

#### **INDUSTRIAL CONSTRUCTION**

Alfred T. Glassett, '20, President



## *Nature was working for you...a billion years ago*

Age-old natural gas—changed beyond recognition by the hand of science—is in nearly everything that's new today

Geologists tell us that centuries ago mountains rose and crumbled . . . oceans formed and disappeared . . . and great masses of plant and animal life were buried under layers of earth, rock, and water. Gradually, chemical reactions changed that buried matter into oil and natural gas.

**IT IS IMPORTANT TO ALL OF US**—Natural gas came into its own within the lifetime of many of us. Its great importance began when scientists learned to separate and use its parts. Out of this work in the field of petro-chemistry came "Prestone" anti-freeze, the all-winter type that took the worry out of cold weather driving. Then there are today's plastics. Some are so soft and pliable that they make beautiful, long-lasting curtains and drapes for your home. Others are so tough and enduring that they are used to protect the bottoms of ocean liners. Natural gas products are important ingredients in nearly all of them.

**FROM ANTI-FREEZE TO FUEL**—Wherever you turn, there's something that's been made better by the magic touch of

chemistry. It brings you many of today's life-saving wonder drugs . . . man-made fibers for exciting new textiles . . . hundreds of useful chemicals . . . and also "Pyrofax" gas, the modern bottled gas for home, farm, and industry.

**UCC AND CHEMISTRY**—The people of Union Carbide pioneered in producing synthetic organic chemicals. Today, their plants turn out more than 350 of these versatile chemicals for industry to use in making the things that serve you so well.

**STUDENTS and STUDENT ADVISERS:** Learn more about the many fields in which Union Carbide offers career opportunities. Write for the free illustrated booklet "Products and Processes" which describes the various activities of UCC in the fields of ALLOYS, CARBONS, CHEMICALS, GASES, and PLASTICS. Ask for booklet I-2.

# UNION CARBIDE

## AND CARBON CORPORATION

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—UCC's Trade-marked Products of Alloys, Carbons, Chemicals, Gases, and Plastics include—

PRESTONE and TREK Anti-Freezes • EVEREADY Flashlights and Batteries • NATIONAL Carbons • ACHESON Electrodes • PYROFAX Gas  
ELECTROMET Alloys and Metals • HAYNES STELLITE Alloys • PREST-O-LITE Acetylene  
DYNEL TEXTILE FIBERS • BAKELITE, KRENE, and VINYLITE Plastics • LINDE Oxygen • SYNTHETIC ORGANIC CHEMICALS



# What GENERAL ELECTRIC People Are Saying

G. B. WARREN

## *Turbine Division*

**THE ENGINEER IN PUBLIC LIFE:** The value of the engineer in public life is measured by his knowledge of industrial engineering and power economics, his understanding of structures in the broad sense, and his honesty of approach, developed because he has learned that nature can't be cheated . . . can't be made to produce something for nothing.

A good engineer gets all the facts he can before deciding on a course of action, examines possible alternative courses and the results that would accrue, and tries to select the optimum. Qualifications for men in public service should be the same.

I believe we need the practical, informed, and so, intellectually honest, approach to public affairs that the engineer has brought to our private industrial affairs. This cannot, in my judgment, be obtained by the part-time attention of engineers on a layman basis in government, but must be obtained by professionally trained public administrators who will need much, but not all, of the technical training of the engineer, supplemented by the broader training required of this field.

*University of Wisconsin  
4th Annual Engineers' Day*



E. D. TROUT

## *X-Ray Department*

**REDUCING X-RAY DOSAGE:** Because of the increased portion of the total population now receiving radiation from so many sources, it may well be that the long term effects of doses too small to produce an acute effect are important. Certain it is that, in view of the increased use of radiation in all its forms to such a large percentage of our people, there is an obligation on the part of all who use radiation to subject the patient to as small a dose as is consistent with an adequate examination. Anything that can be done to reduce the dose will be a step in the right direction.

It is hoped that we will become aware of, and establish, limitations

to prevent the nonacute and long term effects of small doses of radiation which presently appear to be nonreversible once the effect has been initiated and which may not be restricted in their influence to a single generation.

*52nd Annual Meeting  
American Roentgen Ray Society*



J. C. AYDELOTT

## *Transportation Department*

**RAILROAD ELECTRIFICATION:** In this country the trend is toward very heavy trains, and speeds are gradually increasing as road beds are improved and better riding cars replace the old ones. High horsepower to handle such trains in the future comes easily with electrification—provided we look ahead in the selection of a suitable system. It will be to no one's benefit to be tied to a system that inherently limits the horsepower that can be made available to a train, or a system that is not equally adaptable to high-horse-power locomotives and conversion of existing diesel-electric locomotives.

The urge to lower the cost of electrification is, of course, what prompts us to look hopefully at every possible system. But there are other proved ways of getting costs down that are far more effective than starting with a blank piece of paper and a new dream every time the question of railroad electrification comes up. I am referring, of course, to the genius of American repetitive manufacture. There is far greater benefit to be realized by standardization—both in manufacture and operation—than can ever be hoped for by hunting for a unique solution for a given set of conditions on a particular railroad.

*G-E Review*

W. E. JOHNSON

## *Nucleonics Division*

**THE SOCIAL IMPACT OF THE ATOMIC INDUSTRY:** One concept of possibly great social importance is the fact that atomic energy gives us at last very definite evidence that there is nothing very substantial in the real world of ours. It will probably take decades and perhaps generations for a consciousness of the unsubstantial nature of the universe to sink into the minds of people and to influence their social conduct and their spiritual beliefs. The fact that all of the substantial matter in the bodies of all the people in New York City could be put into a single cubic inch and other similar information will, in due course, have its influence on the minds and the social consciousness of people.

One more effect on our social structure is that brought about by the economic impact of this industry. At the moment, I think we must admit that the economic effects are negative and that from the standpoint of usable products or productive power that might increase the wealth of the nation, we are still, so to speak, in the red. However, the future looks bright even here and it is almost a certainty that practical methods will be found to make use of nuclear energy for such things as propulsion of ships and submarines. If we look at this as a first major step toward an industrial type of application, we can look toward the long-term future of this industry with greater confidence.

Finally, with continued growth, increasing knowledge and sustained confidence in our own future, I think we shall soon find that achievement rather than destruction will be the measure of our progress.

*Prof. Engineers Northwest Centennial  
Portland, Oregon*

*You can put your confidence in—*  
**GENERAL  ELECTRIC**





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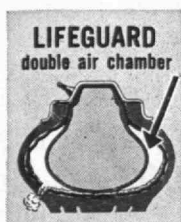
9360

# BLOWOUT-SAFE! PUNCTURE-SAFE! THE ONLY 100,000-MILE RE-USABLE PROTECTION!



Sequence photograph of a blowout. Car is equipped with New LifeGuard Safety Tubes.<sup>1</sup>

Blowout occurs here ↑ Tire still holds enough air for a safe, controlled, straight-line stop!



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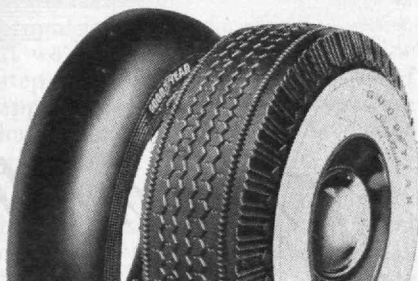
it up without loss of air pressure.

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**Your smartest buy** of all is a set of Goodyear tires with New LifeGuard Safety Tubes. No other tires give you the same comfort, safety and mileage as Goodyears. No wonder more people ride on Goodyear tires than on any other kind.

## NEW LIFEGUARD SAFETY TUBES

by **GOODYEAR**

LifeGuard, T. M.—The Goodyear Tire & Rubber Company, Akron, Ohio





Harold M. Lambert

"Yet ah! why should they know their fate,  
Since sorrow never comes too late,  
And happiness too swiftly flies?  
Thought would destroy their paradise."

— Thomas Gray

# THE TECHNOLOGY REVIEW

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## THE STATE

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TO BE GREAT OR A DEMOCRACY

AGGRESSIVE FIGHTING FOR  
THE RIGHT IS THE NOBLEST SPORT  
THE WORLD AFFORDS

IN POPULAR GOVERNMENT  
RESULTS WORTH HAVING CAN ONLY BE  
ACHIEVED BY MEN WHO COMBINE WORTHY  
IDEALS WITH PRACTICAL GOOD SENSE

IF I MUST CHOOSE BETWEEN  
RIGHTEOUSNESS AND PEACE I CHOOSE  
RIGHTEOUSNESS



H. Armstrong Roberts

*Theodore Roosevelt Memorial Hall  
Museum of Natural History, New York City*



# THE TECHNOLOGY REVIEW

Vol. 55, No. 1



November, 1952

## The Trend of Affairs

### *Centennial of Engineering*

**H**ELD in Chicago from September 3 to 13, the Centennial of Engineering commemorated the founding of the first national society of engineers in the United States just 100 years ago. At its inception, this society comprised all branches of engineering devoted to civilian affairs, and, to distinguish its members from engineers engaged in military activities, was called the American Society of Civil Engineers.

The principal purposes of the Centennial of Engineering were: to promote a better understanding by the public of the principles which have made the United States a great nation, particularly in the field of technology; and to foster a better understanding of the engineering profession itself. With the nation confronted by a substantial shortage in well-qualified technical man power during the same period when it depends more and more upon the scientist and engineer for maintaining its economic and social systems, the centennial convocation came at a particularly appropriate time.

The year 1952 marks the 100th anniversary of professional engineering in the United States, as well as the anniversary of the founding of the American Society of Civil Engineers. In festive mood and with complete co-operation, professional engineers from all technical fields, and representing 65 engineering groups, participated in the convocation program. Members of these groups presented technical papers in their specialized fields, held conferences and symposia, or studied progress during the past century and took a look at the future of engineering in the United States.

High light of the convocation was Centennial Day on Wednesday, September 10. At luncheon that day, the Right Honorable Clarence D. Howe, '07, Cana-

dian Minister of Trade and Commerce and Defense Production, was awarded the Hoover Medal.

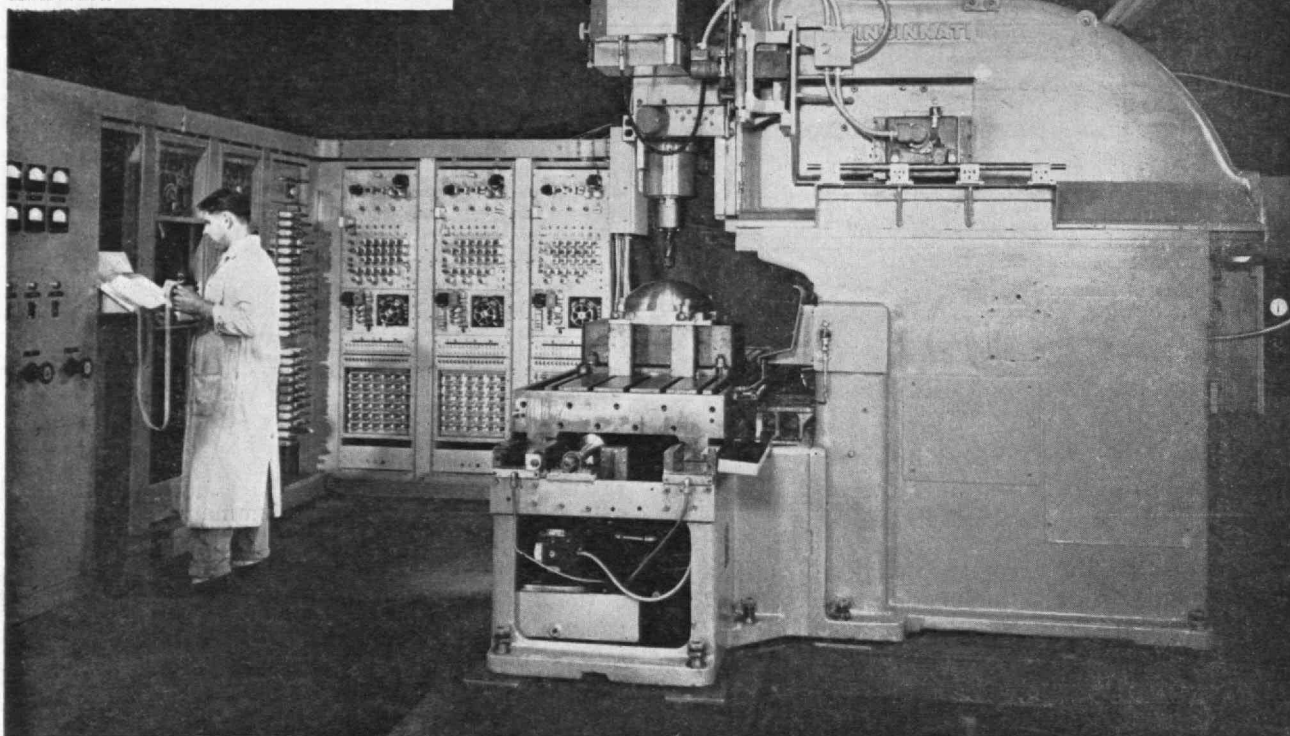
In accepting the Hoover Medal, Mr. Howe spoke of the new problems resulting from technological advances, and urged engineers to take an active part in attempting to solve problems which they have helped to create. In his acceptance address, Mr. Howe made the following comment: "The day is past when rule by a group of citizens trained in any one field can give satisfactory service to a nation in a complex world. The engineer's voice must be heard, and his presence felt . . . for he has something unique to contribute to the understanding of present-day problems." Former President Hoover was in attendance and spoke briefly in connection with the award named in his honor, which this year was bestowed upon a distinguished Technology Alumnus.

Appropriately enough, Technology Alumni and staff members participated in the Centennial program to a substantial extent in other ways as well. Harold L. Hazen, '24, Dean of the Graduate School, Milton C. Shaw, Associate Professor of Mechanical Engineering, and Professor Rolf Eliassen, '32, of the Department of Civil and Sanitary Engineering — all led discussion groups. In addition, papers on a wide range of technical and educational topics were presented by the following members of the Institute's Faculty and staff: Gordon S. Brown, '31, Nathan H. Cook, '50, Iain Finnie, '50, Robert J. Hansen, '48, Mayo D. Hersey, '09, Myle J. Holley, Jr., '39, Arthur T. Ippen, Warren K. Lewis, '05, Yao T. Li, '38, Egon Orowan, Bernard E. Proctor, '23, Ernest Rabinowicz, Milton C. Shaw, Maria Telkes, Walter C. Voss, '32, John B. Wilbur, '26, and Chin T. Yang.

On Tuesday evening, September 9, The M.I.T. Club of Chicago held a dinner commemorating the Centennial of Engineering. Under the able leadership of John G. Praetz, '28, President of the Club

As an extension of servomechanism techniques developed under the direction of Professor Gordon S. Brown, '31, Head of the Department of Electrical Engineering, and William M. Pease, '42, Associate Professor of Electrical Engineering, this contour-shaping machine is automatically controlled by means of tape punched according to design requirements. New and interesting possibilities in machine-tool operations result.

M.I.T. Photo



who planned the affair, the meeting provided an unusual opportunity for Technology Alumni to gather to discuss Institute matters as well as affairs of engineering interest. Donald P. Severance, '38, Secretary-Treasurer of the M.I.T. Alumni Association, represented that body and was one of 455 Technology Alumni present.

Additional plans for celebrating the Centennial of Engineering have been announced by the M.I.T. Club of Puerto Rico. This club plans a fiesta for mid-November to take special cognizance of the past 10 decades of professional engineering, and will be attended by H. E. Lobdell, '17, Executive Vice-president of the Alumni Association.

As granddaddy of the major engineering societies in the United States — and one of the earliest to operate anywhere in the world — the American Society of Civil Engineers has paved the way for other engineering organizations to make their contributions to our way of life in their own specialized fields. Its convocation brought into sharp focus the relative youth of engineering societies, and the vast contributions which engineering education has wrought by increasing our understanding of nature's laws.

As it begins its second century of service to the nation and to the engineering profession, the American Society of Civil Engineers has the wholehearted wishes for continued success from all in the broad field of technology.

## Da Vinci's Science

THE scientific and engineering achievements of Leonardo da Vinci were brought to the attention of the Institute's Faculty and student body in an exhibition of models constructed by Roberto A. Guattelli from the drawings in da Vinci's notebooks. The exhibition, lent by the Fine Arts Department of International Business Machines Corporation, and displayed at the opening of the school year, commemorated the 500th anniversary of the birth of the medieval painter, sculptor, architect, scientist, and engineer extraordinary whose paintings, the "Mona Lisa" and "The Last Supper," have elicited international admiration for centuries.

In our present technological environment it is perhaps not easy to recapture and appreciate the intellectual atmosphere in which da Vinci lived, and to assess the contributions which his genius made possible prior to such thinkers and experimentalists as Descartes, Bacon, and Gilbert. That da Vinci's engineering achievements were not especially highly regarded until recent times is probably because none of his contemporaries had sufficient zeal and knowledge to follow in da Vinci's path; by the time his work received the attention due it, the intellectual climate had changed sufficiently so that da Vinci's work had lost its uniqueness. Today we reawaken to his engineering genius.



As indicated by models made from his sketches, many of Leonardo's conceptions are as practical now as when first conceived. This is true, for example, of his design for a scaling ladder which bears close resemblance to ladders now employed in fire fighting; of his circular pulley system which is essentially a multiple block and tackle system; of his two-level bridge with separate passageways for pedestrian and vehicular traffic; of his rack and pinion device for lifting heavy weights and which bears close resemblance to today's automobile jack.

Other examples of da Vinci's outstanding engineering genius are shown in: his hydraulic pump which was erected to raise water for the Castle of Milan; his roller-bearing arrangement for reducing friction on turning axles; the air-conditioning unit built for the boudoir of Beatrice d'Este, wife of Leonardo's patron; and a printing press to be operated by one man. Other of da Vinci's practical inventions include:

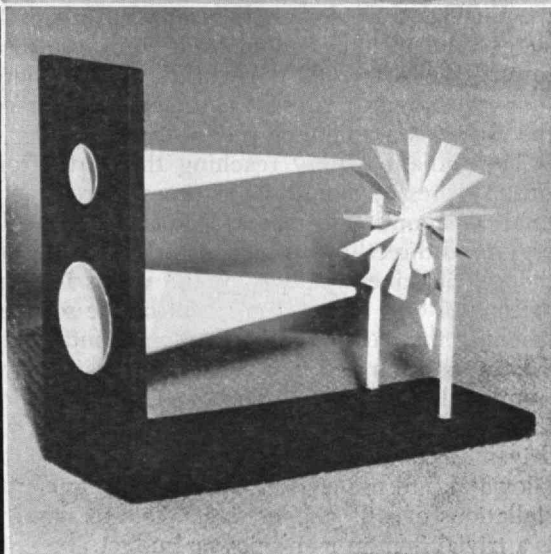
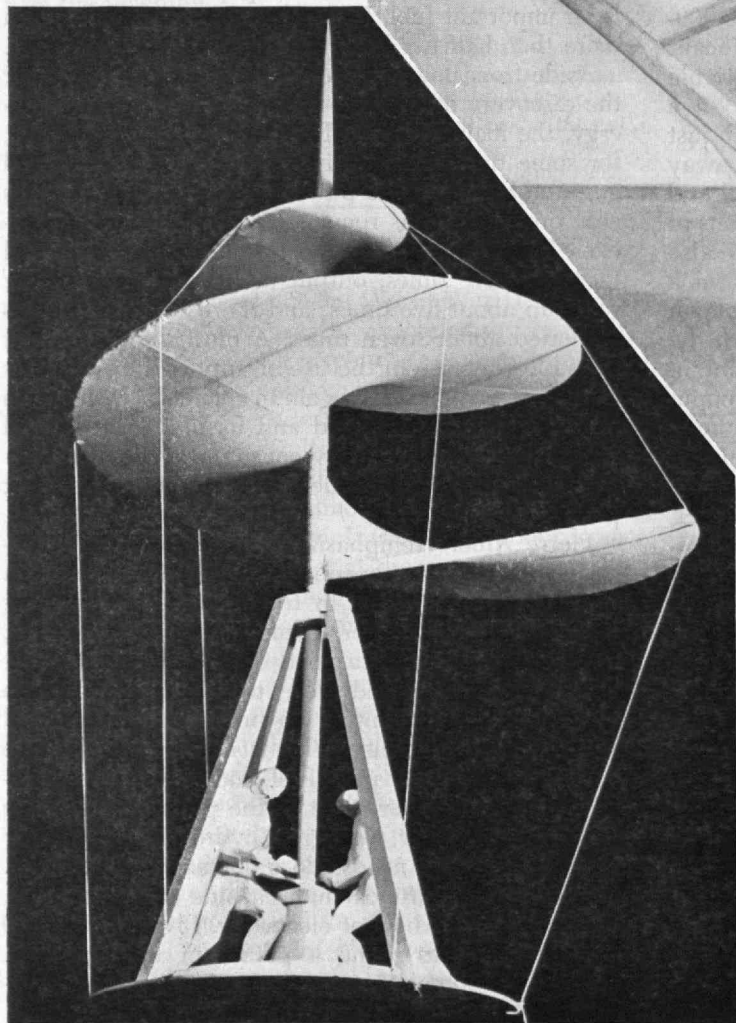
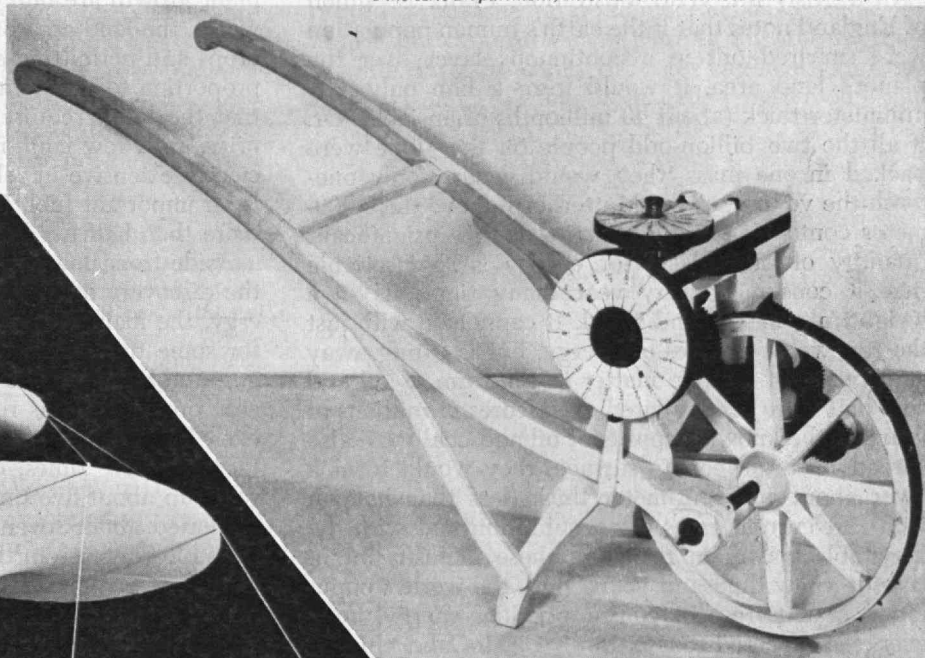
a variable speed drive; design for a clock with a minute hand as well as an hour hand; a grinding mill, and a nap-raising machine for brushing cloth. A hand-operated mint, designed by Leonardo, was used to cut metal discs and stamp out coins for the Papal State. He also devised a lens-grinding device, and a projector, with candle inside, for throwing an enlarged image of an object on a screen.

As examples of his work in military engineering, the exhibits show models of: a double-hulled ship to prevent, or at least to postpone, sinking; aerial bombs; a rotating bridge; a military tank designed for breech-loading cannon; a steam-activated cannon; and several designs of machine guns which greatly increased the firing power of arms of the Fifteenth Century.

Some of da Vinci's plans were destined for failure in application because the sources of energy available at his time were inadequate for the loads as-

*Models of some of da Vinci's inventions are shown below. In the odometer (upper right) dials turned by a system of gears, measured distances traversed as the large wheel was rolled along the ground. (Lower left). Scale model of aerial screw, heralding today's helicopter, and possibly a forerunner of the modern propeller, was to be operated by springs, or perhaps by man power. The light model is made more rigid by use of strings. (Lower right). To measure the force of wind, Leonardo devised an anemometer consisting of cones of different sizes to apply air pressure to a light paddle and set it rotating.*

Fine Arts Department, International Business Machines Corporation



signed to them. This is true, for example, of da Vinci's design for an ornithopter flying machine, the two huge wings of which were to be operated by human power through a series of ropes and pulleys, and a windlass. Da Vinci's study for a helicopter also falls in this class, although his air screw may well be the forerunner of the modern propeller.

## Energy and Man

A SCALED, broad-gauge picture of the place of energy in man's present civilization, of the relative importance of the various fuels, and of the most likely development of energy sources in the future is the purpose of a group of papers recently released by United Nations Educational, Scientific and Cultural Organization. The six papers, by as many authors, are published by the U.N.E.S.C.O. under the general heading, "Energy in the Service of Man." This is not the place for a summary of an already compacted survey of the world's energy sources, but some of the points brought out are sufficiently striking to merit some repetition.

In a grisly but vivid illustration, Franz E. Simon of England notes that if the earth's human population were smeared out in a continuous layer over the planet's land area, it would form a film only .001 millimeter thick (about 40 millionths of an inch). Or, if all the two billion-odd people on the globe were packed in one mass, they would occupy only one-tenth the volume of the Matterhorn above the 3,000-meter contour. Yet, the appetite of this insignificant quantity of protoplasm for energy is so insatiable that it consumes every year many times its own weight in coal, oil, and wood. It cannot do with just the renewable sources of energy, but is eating away at deposits of organic matter in the form of oil and coal that were accumulated over scores of millions of years. If the known deposits of oil and coal were also spread over the earth's surface, they would form a layer about one centimeter thick (less than half an inch). At current rates of consumption and with the inevitable wastes in recovery, these deposits might last for a few thousand years. Both the world's population and its rate of consumption of energy, however, are expected to rise. Louis C. McCabe, chief of the Fuels and Explosives Division, Bureau of Mines, suggests that, unless something unforeseen arises, toward the year 2000 the world's annual energy requirements may represent as much as 1 per cent of the then existing mineral fuel reserves.

The radiant energy reaching the earth from the sun is scores of thousands of times more than man's total consumption of power. The amount of solar energy used directly by man is utterly insignificant. Although the kinetic energy in the winds is estimated to contain only about 2 per cent of the solar energy reaching the earth, the winds alone contain perhaps 2,000 times more energy than that obtained by man from fuels. But effective extraction of power from this variable, low-level source is difficult. A few wind-driven power plants, ranging in size from 100 to 1,000 kilowatts, are under construction, and numerous installations of still smaller size exist, but wind power is a trivial item in man's power budget.

For similar reasons, the energy in the tides is likewise unattractive for economic exploitation. Professor Simon points out that if half the money needed to develop the so-called Severn Barrage Scheme in Great Britain were spent in improving the efficiency of heating systems, it would save about 20 times more coal than would the tidal power plant.

One of the most easily exploited expressions of solar energy is water power, although the total available amount, even if fully developed, is not sufficient, apparently, to supply all of man's present energy needs. For the entire world, about one-tenth the potential water power has been developed, but the percentage in some countries is far higher. In Switzerland, full exploitation of the available economic sites is expected within perhaps two decades. That country is already drawing more than half her energy requirements from water, and the percentage is about as high or higher in Sweden, Italy, Norway, and Finland.

Plant growth also makes use of the sun's energy, although only about 1 per cent of the solar energy striking a given area is so converted. Wood and other plant growth are bulky and inefficient fuels. What is worse, the land area of the earth capable of growing crops and permitting easy harvesting is so limited in proportion to the human population's need for food, that the latter requirement must generally take priority. In a few countries, however, forests are sufficiently extensive in relation to population that wood is an important fuel. Finland is a case in point, with more than half her locomotives being wood burners.

Aside from new developments in nuclear power or the discovery of efficient means of utilizing solar energy, the main sources of energy for industrial man, for some time, will continue to be coal, oil, natural gas, and hydroelectric power. Since 1920, the world's coal production has remained virtually static. However, between 1920 and 1949, production of crude oil increased five times, output of hydroelectric power went up about five times, and the use of natural gas increased about seven times. A most important, but invisible, increase in the use of applied power arises from the slow but steady gain in efficiency with which power is being generated and used. In the United States, the ratio of energy consumption to gross national product has been declining at about 1 per cent per year.

Pierre Ailleret emphasizes that, however at variance with popular conception, electricity is rather a difficult form in which to transport energy. Almost invariably it is cheaper to move a high-grade fuel, such as petroleum or a good coal, to a power plant that has been erected close to its market than to build the power plant at the mine or oil field and transmit the electricity. This is not necessarily true for a comparatively poor fuel, such as lignite, however, where a power plant at the pit head might be preferable. Norway, with great hydroelectric capacity in relation to her needs, does not export electricity. Instead, she exports calcium carbide and aluminum, both heavy absorbers of electricity. It takes about 10 kilowatt-hours to refine a pound of aluminum. A pound of good coal contains only about one kilowatt-hour.



# Partnership for Progress

## *Steady Advancement of Creative Enterprises Requires Teamwork of Industry, Government, and the Universities*

By JAMES R. KILLIAN, JR.

**T**HE role of applied science in determining the victors in World War II was a sharp reminder of the practical rewards that could come from energetic research and development programs. But even before this, the United States had been increasing its productivity on the average of 3 per cent a year through ever increasing mechanization of industry. From 1939 to 1950 industry in the United States increased its use of power 134 per cent. Today American industry produces one-half of the world's goods with only 7 per cent of the world's population, and we are just at the beginning of a new era of automatic control as applied to industrial processes. One of the most recent extensions of automatic control is the development of a milling machine that operates in response to instructions that are typed out on tape and inserted into the machine.

*The growth of expenditures for research and development has risen rapidly during the past decade, with government assuming the predominant financial support. The bar at the extreme right shows the extent to which the universities, industry, and government conduct the nation's research during 1952.*

In 1915 there were about 100 research laboratories in the United States. Today there are 3,300 and they employ 165,000 people. Since World War II the federal government has greatly expanded its research activities, and this year it is spending more on research than industry and the universities combined.

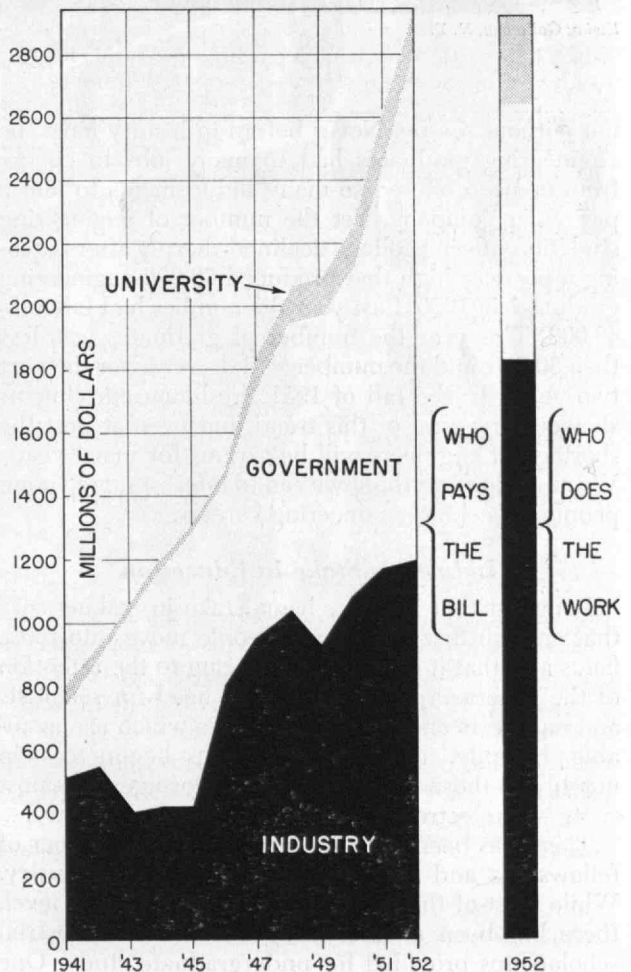
In the past two decades, research expenditures in this country have multiplied more than tenfold, and today the nation is spending three billion dollars on research. That is a sum almost as large as the total federal budget 25 years ago. It is equal to about 1 per cent of the national product at the present time. Putting it another way, this huge total represents an expenditure per man, woman, and child of \$20 a year.

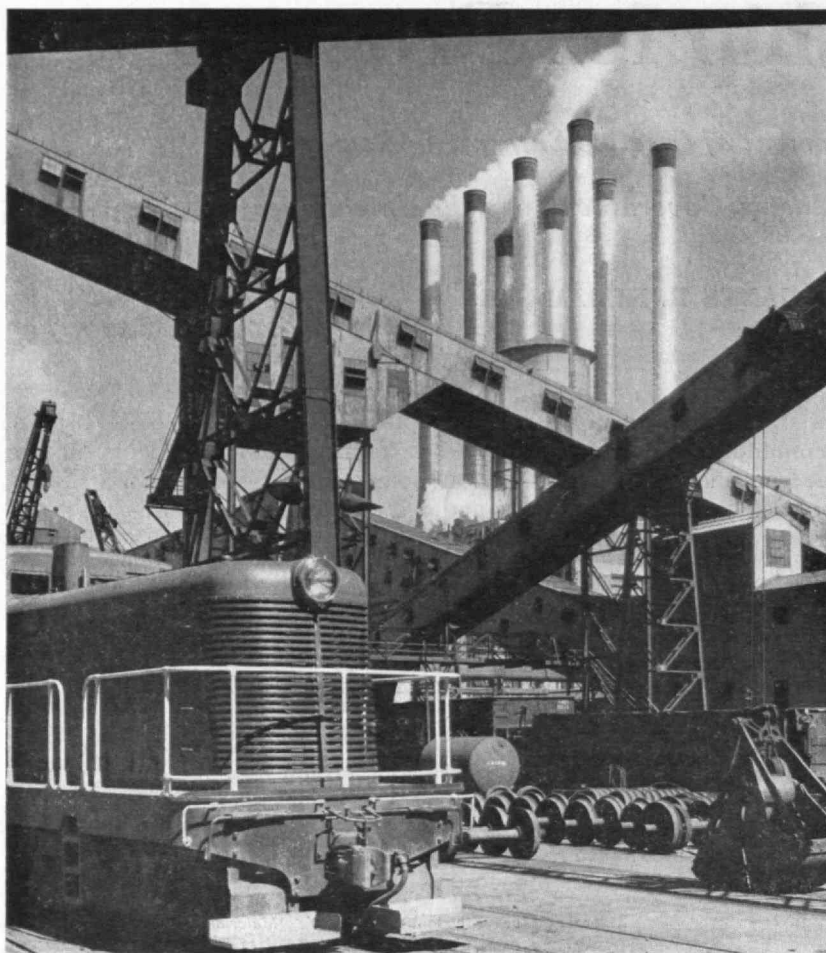
Our industrial expansion is unprecedented. By the end of this year, 50 per cent will have been added to industrial capacity since 1945, the largest relative gains having been made in electrical machinery, non-electrical machinery, and chemicals. And these new highs in total investment represent also more investment per worker. A study of 100 of the country's largest manufacturing enterprises revealed that in 1949 the total assets of the companies represented an average investment of \$12,200 for every worker, of which \$5,400 was in the form of plant and equipment. In many industries the investment per worker was much higher than this average.

Because this rapid technological advance has its effect on the work of all of us, I should like to say something about some of the responsibilities shared by industry and our educational institutions in a period like the present.

First of all, of course, we must do everything possible to increase the number of engineers and scientists. Since 1890 the number of engineers has increased tenfold in industries that have increased threefold. Today we have approximately 400,000 engineers employed in industry, and engineering has become the largest profession for men. Despite this, the shortage is acute. Industry competition for engineering graduates in June, 1952, has been called hysterical — and

Resources for Freedom — President's Materials Policy Commission





*Ewing Galloway, N. Y.*

*There is opportunity in an academic environment to draw upon the resources of technology and of the social sciences in studying the methods of operating our increasingly complex technological industries.*

of the most interesting plans for doing this is that developed by groups of industries, as for example, by the American Foundrymen's Association. Here, the wise decision was made that the best way of interesting more students in the foundry industry was not to promote highly specialized courses of study relating to foundry practice. Instead, the interest of young people was stimulated by giving them scholarships which involved only the obligation to work in a foundry during some summer. There was no obligation to take a job after graduation in the industry. This plan has worked with great effectiveness to start the flow of a highly trained group of young men into an industry that fully realized that it could benefit from a greater number of first-rate engineers. I cite this as an example of an effective program of industry-education collaboration.

not without reason. Never before in history have the engineering graduates had so many jobs to choose from or been offered so many inducements to join a particular company. Yet the number of engineering students entering college declined sharply after reaching a postwar high that produced 50,000 engineering graduates in 1950. Last year the number had fallen to 40,000. This year the number of graduates was less than 30,000, and the number will decrease for the next two years. In the fall of 1951, freshman enrollments showed a reversal of this trend, but even at best the shortage of engineers will be serious for many years. We must do everything we can to interest more young people in seeking engineering careers.

### ***Industry's Stake in Education***

I suggest that industry has a stake in making sure that enough first-rate young people move into these fields and that it can help in bringing to the attention of the American public industry's need for scientists and engineers and the opportunities which are available. Happily, industry already has begun to help notably in those areas where the shortages are most acute — in electronics, aeronautics, and chemistry.

There has been a steady increase in the number of fellowships and scholarships provided by industry. While most of these have been at the graduate level, there has been an increasing number of industrial scholarships provided for undergraduate study. One

Another problem which industry and education must face today is that of making sure that, as the nation increases its research and development expenditures, it does not dry up the wellsprings of our scientific advance by drawing too many scientists into development work at the expense of basic science.

I have spoken already of the total expenditures for research in the United States. It is interesting to look at the sources of the funds as reported by the President's Materials Policy Commission. Of the three-billion-dollar total, about 55 per cent is being paid for by government, 40 per cent by industry, and 5 per cent by universities and other nonprofit institutions. This distribution has markedly changed over the last 10 years, for in 1942 the government's share was only 35 per cent, industry's share was 60 per cent, and the universities' and nonprofit institutions' share was again 5 per cent. The 1952 figures, of course, reflect the great expenditures by the government for defense research, but the significant fact that remains is that the government has become the chief agency for initiating and financing research.

Several other observations can be made about this distribution of the research dollar. Some 95 per cent of the total spent goes for development research. This, of course, is a roughest kind of figure, representing as it does a total of the expenditures by government and industry. Of course, in their laboratory activities, both the government and industry undertake some basic,



fundamental research. It is proper that the primary interest of industry and government research programs should be the development of new products, new methods, and new military strength. The interesting thing, however, is that the amount spent by the universities (5 per cent of the total) is as low as it is. This 5 per cent may be presumed to represent the budget for our pure research activities.

Twenty years ago, 15 per cent of the nation's total research expenditures came from funds possessed by the universities. To a considerable extent these were funds that permitted free and uninhibited use. Today, with the universities expending only 5 per cent of the national total, we can only conclude that there has been some reduction in the availability of free funds, even though the total expenditures of the universities have increased.

I have been expressing in terms of dollars expended a problem that has long been recognized as having serious import for our country. While giving strong support to development and application, we have not yet properly provided for pure and fundamental research, the seedbed of all development and application. It has almost become a cliché to say that we have imported our fundamental scientific ideas from outside the boundaries of the United States. This is not altogether true, but there is enough truth in it to drive home the importance of giving adequate attention to the wellspring of our nation's science and technology.

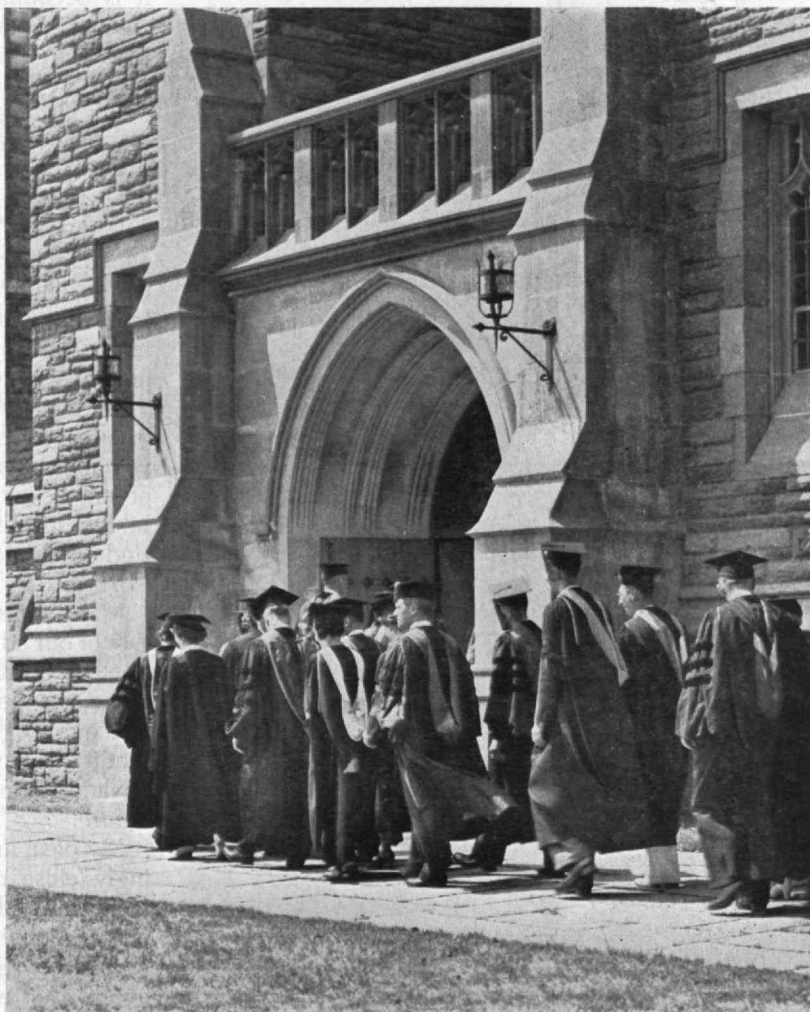
The encouragement and support of basic research must be brought about through joint action on the part of the universities, industry, and government. Let me speak particularly about the partnership responsibilities of industry and the universities.

Believing that there is much to be gained through cross-fertilization of ideas, especially in the field of science and technology, I have long been an advocate of close relationships between education and industry. I believe, for example, that it is of an enormous value to an institute of technology for its faculty to be intimately informed about the problems and the methods of industry. I also believe it important for industry to be informed about the problems and the methods of education and basic research in their fields of interest.

One hazard in bringing about this close relationship is that it will tend to divert the interest of the faculties in the universities from their primary preoccupation with education and basic, uncommitted research. There is no need for this happening, however, if there is a clear understanding of the proper function of the university on the one hand and the proper function of industry on the other in the field of research. It has been very heartening to me in my many contacts with industry to see how widespread is the feeling among industrialists that the university must not be diverted into the kind of development work which is the special responsibility of industry and which industry can do best.

This point of view is all the more important since industry is more and more supporting research in our educational institutions. Through the provision of fellowships, grants-in-aid, and other methods of support, industry is making it possible for our privately financed and endowed institutions to survive the debilitating disease of inflation. I suggest that this is a hearteningly healthy situation, that it is free enterprise supporting free enterprise, provided we make sure that the universities protect and extend their preoccupation with basic research and education. It is this basic research and education that will provide the ideas out of which development research and new products can be carried out tomorrow.

Harold M. Lambert



*Basic to everything we do, of course, is the availability of effective man power.*

It must be said that, in a period when the national security is in danger, preparedness requires some diversion from basic research on the part of all of our institutions, both educational and industrial. We know that in World War II and during the present period, our universities have been called upon to do extensive applied research. This they must do in the national interest, but the necessity for doing it only points up the importance of stressing the protection of their basic research activities.

### ***Effective Man Power Needed***

Basic to everything we do, of course, is the availability of effective man power. It is a striking fact that 70,000 scientists and 55,000 engineers, or a total of 125,000 men and women, carry the research load of the United States. Of this total, about 60 per cent are in private industry, 33 per cent in government, and about 7 per cent in universities and nonprofit institutions. This is an exceedingly small fraction of our total working population, and its smallness points up the importance first of preserving an atmosphere and environment in which this group can be most effective, and second, of making sure that we maintain a steady flow of first-rate minds to the group. Of this total of 125,000 research personnel, only about 9,000 are in our universities and hospitals. This is the group that

has the responsibility of carrying on our basic research and of making sure that we are training new men highly competent to do research. It is important that we provide the best possible conditions for this handful of men to carry out their work effectively.

### ***Engineers Become Executives***

So far I have spoken mainly of joint industry-educational programs to further technological innovation. Let me conclude with some observations on the equally important opportunity to develop innovation in the field of management.

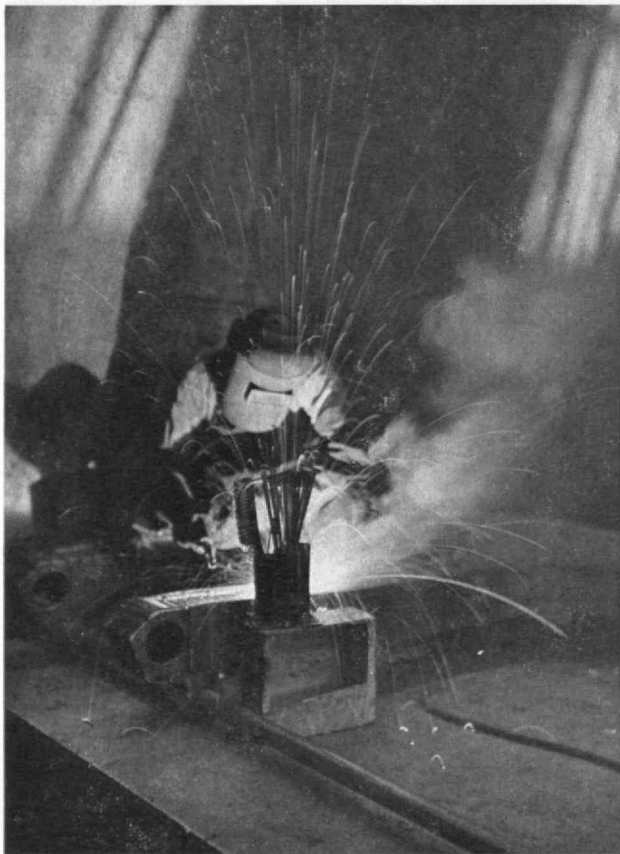
Some time ago we had in this country a team of educators and industrialists from England, brought over under the auspices of the Economic Cooperation Administration to study education-management relationships in this country. The report which they rendered their associates in England was very interesting. They pointed out, for example, how much more extensive is our education in engineering in this country than engineering education in England and how greatly this had affected our technological advance. They further pointed out the growing emphasis in the United States on preparation for management responsibility which apparently has no parallel in England or in any other country for that matter. In England it has been an exceedingly unusual thing for a man trained in science and engineering ever to move into a position of executive responsibility. In this country it is becoming increasingly true that engineers are coming to play a predominant role in management.

In the United States there has been a steady increase in the scope and size of our schools of management, although up until this point their primary emphasis has been on teaching rather than research. With the impetus coming from men in industry, such as Alfred P. Sloan, Jr., '95, a greater interest is now developing in the opportunities for innovation in management techniques. There is opportunity in an academic environment to draw upon the resources of technology and of the social sciences in studying the methods of operating our increasingly complex technological industries.

Here we see the teamwork that has been traditional in our industrial society, being strengthened through new concepts in research techniques. The full impact of this development on our industrial life has still to be felt, just as we are only at the beginning of the period of technological advance which the present high expenditures on research promise to make possible.

Many factors will combine to help determine the rate of our advance in the years ahead. Excessive taxation, or taxation that does not recognize the importance of expenditures for research could seriously retard our progress. Inflation is still a hazard. But I think that it is safe to assume that the years ahead will bring advances more extensive and more rapid than ever before.

My plea, in conclusion and summary, is for increasingly close relationships between industry, government, and education, in order to insure that the best possible environment and conditions are maintained to enable research and development and creative enterprise steadily to move ahead.



A. J. Baker

*The interest of young people was stimulated by giving them scholarships . . . to start the flow of a highly trained group of young men into an industry that fully realized that it could benefit from a greater number of first-rate engineers.*



# No Virtue Goes with Size

*Victim of Modern Technology Is the Outsize Man Whose  
Clothing, Housing, Transportation, and Even Occupation  
Are Affected by the Economics of Mass Production Techniques*

By FREDERIC W. NORDSIEK

A RECENT news item\* tells of a midshipman who, during his residence at Annapolis, grew from six feet two inches tall to six feet five inches in height. Thus he became an inch too tall to qualify for a commission in the United States Navy. This account emphasizes the small range of size expected of men in general, and indeed required of military men.

By conforming to narrow size limits, the human being qualifies as an animal, according to one part of the sixfold definition which biologists use to distinguish animals from plants† This definition states that animals, in contradistinction to plants, are capable of spontaneous movement, show rapid motor response to stimulation, possess sensory and nervous organs, do not contain cellulose or chlorophyll, are not capable of photosynthesis, and are strictly limited in size and form.

With respect to the latter phase of this definition, a normal tree, for example, continues to increase in size as long as it survives. It has an indeterminate number of limbs, arranged in manifold ways. Shapes of trunks, and general configurations of trees, vary widely. In contrast, the body framework of the normal human being stops growing at the end of adolescence. Furthermore, like all higher animals, men have a fixed number and arrangement of extremities, and a highly standardized form.

The normal size range of human beings could be established by citing some of the voluminous statistics available on the height and weight distributions of various human groups. But this point can be made just as firmly by merely recognizing that in the everyday American lexicon, a human male less than five and a half feet in height is "short," whereas one over six feet high is "tall." Hence a mere six inches is generally acknowledged as the range of *usual* size.

What, then, is the fate of the outsize man? The military answers this problem by ruthless exclusion. The mighty midshipman whose plight was recounted at the opening of this article might have qualified for a commission in the Army or the Air Force if he grew no taller than six and a half feet. Should he grow taller than that, none of the armed services would have commissioned him. The Navy sets a height limit two inches shorter than the other services, presumably because of the cramped quarters aboard ship. Such a

restriction makes sense to any fairly tall man who has battered his head while moving about below decks on a naval vessel, or even on a civilian ship not in the luxury-liner class.

But a much more important reason behind exclusion of outsize men by the armed forces is clothing supply. For when the range of apparel sizes kept in stock by military storerooms is extended the least bit, difficulties in logistics become disproportionately exaggerated.

The fact that the armed forces have no use for outsize men, irrespective of whether they are tiny or huge, underlines the extent to which hand-to-hand combat has disappeared from modern warfare. In ancient times, immense soldiers were highly prized, but today the armed forces exclude giants just as uncompromisingly as they debar midgets.

Though excluded by the sartorial designers for those assigned to the modern planet of Mars (be it Korea or Europe), the outsize man must literally "fit in" to civilian life on our wordly planet. He must squeeze through doorways, hunch into chairs, curl up in beds, and wriggle into his clothes. Fortunate indeed he is if he can afford to have his clothes made to order. (An acquaintance of the writer's, who is both tall and obese, but fortunately is well to do, once remarked that the only item of apparel he could buy ready-made was a handkerchief.) But most men must clothe themselves from ready-made stocks.

*An important reason behind the exclusion of outsize men by the armed forces is clothing supply.*  
Ewing Galloway, N.Y.



\* "Tall Story," *Newsweek*, April 30, 1951, page 40.

† "Animal, Vegetable," *The Technology Review*, 52:425 (June, 1950).



Ewing Galloway, N.Y.

*The matter of clothing sizes may be made tangible by considering the sizes normally stocked by retail distributors.*

Let us ponder this question of clothing. Incidentally, such a review brings to light some curious lore concerning the measurement and designation of apparel sizes. We shall confine ourselves principally to men's clothing, with occasional brief excursions to the distaff side to provide amusing contrast.

### ***Clothed with Integrity***

Human apparel, one quickly realizes upon considering the question of sizes, falls into two discrete groups with respect to variability in size. One group, with relatively narrow variation in absolute size, includes hats, gloves, and shoes. The other, having substantial size ranges, includes trousers, coats, and underwear.

The key to this difference in size variability is the area of the body which each apparel group covers. Hats, shoes, and gloves must fit the head, feet, and hands — in short, the extremities. These locations, for some unknown biological reason, are little subject to the accumulation of fatty tissue which characterizes obesity. Therefore, their size is determined mainly by the bony framework and musculature of the body, and, as a result, fulfills the criterion of narrow size limits laid down by our basic definition of animals.

Trousers, coats, and underwear — to the contrary — cover portions of the *trunk*. And it is here that obesity, a phenomenon limited in nature to man and certain of his domestic animals, occurs. There is no limit to the accumulation of fatty tissue. Therefore the trunk of the human body, and the clothing that covers it, do not conform to the natural law limiting the usual sizes of the animal body framework.

The matter of clothing sizes may be made tangible by considering the sizes normally stocked by retail distributors. Certain specialty shops, to be sure, cater to outsize customers. But a more representative picture will be obtained if we take our data from the catalogue of one of this country's major mail order houses.†† Such a source of information affords an excellent measure of *usual* sizes, for the range carried has been worked out over decades of experience. It

strikes a happy balance of satisfying the needs of as many people as possible, without unduly complicating catalogues and cluttering stock-room shelves with sizes asked for by relatively few customers. In the following discussion, the statement, that a given apparel item *is available* in certain sizes, applies to the stocks of a typical American mail order house.

### ***Head, Hand, and Foot***

Men's hats are stocked in sizes from 6½ to 7½, with increments of one-eighth size. The reader has doubtless purchased and worn such headgear throughout his adult life; but does he know what the sizes signify? If a hat were to be ordered by mail, and the size were unknown, how might it be found? Very simply! With a tape measure determine the perimeter of the head, in inches, at the level where the sweatband of the hat will rest; then apply the formula:

$$\text{hat size} = \text{perimeter of head} / 3.1416$$

In short, sizes of men's hats are the same as the mean diameter of the head, measured in inches. Thus, hat size represents the diameter of a circle whose circumference is equal to the perimeter of the head. Hence, the usual limit of men's hat sizes (from 6½ to 7½) represents head circumferences of 21 to 24 inches, a range of only three inches. From a mean value of 22½ inches, the usual extremes do not vary more than about 13 per cent. The ladies, ever more forthright, determine their hat sizes directly in inches of head perimeter.

Although men's hat sizes, in contrast to women's, are determined by a recondite formula, just the reverse is true of gloves. The sizes of men's gloves are measured directly in inches, whereas this is not true for women's hand coverings. Men's glove sizes are specified in terms of the perimeter of the hand at the knuckle, measured to the nearest half inch. The sizes of women's gloves are determined in the same manner, except that three-fourths of an inch is subtracted from the measurement. This system perhaps fosters a feeling of feminine manual daintiness; for if a pair of spouses had exactly the same hand size and the man wore size 8, the woman would take a mere 7½.

Men's gloves are stocked in sizes 8 to 11. The usual variation from the mean of 9½ is three inches, or about 32 per cent. Since graduation in half sizes is the rule, seven sizes are usually provided to cover the range. But one mail order house finds it feasible to bridge the span with but three sizes in dress gloves for men — small, medium, and large. Men's work gloves, where utility is the sole consideration and appearance inconsequential, come in one size **only**.

The high uniformity in size of the human hand is confirmed by our observations that the total range in perimeter at the knuckle is but three inches, and that the majority of male hands are provided for with, at most, seven and sometimes as few as three sizes for dress gloves, and one size for work gloves.

In footgear we encounter the most remarkable of the several systems of size designation used for human apparel. A size in shoe length is one-third inch. Men's shoes are made in half sizes from 7 to 12,

†† *Montgomery Ward*, Fall and Winter, 1950–1951.



corresponding to shoe lengths of from 9½ to 11½ inches. In width, a size is one-sixth of an inch. When the system was established, it was assumed apparently that the human foot was never narrower at the ball of the foot than three and a half inches, never broader than four and one-sixth inches, for the sizes *A* to *E* were set to cover this range. Subsequently *AA* and *AAA* were created to cover feet progressively narrower than *A*, and widths *EE* and *EEE* to take care of feet wider than *E*.

Just to complicate the picture and to prevent sock sizes from corresponding directly to shoe sizes, hose sizes are measured in inches according to the length from toe to heel when socks are laid out flat and no size is given for foot width. Sizes 10 to 13 are provided. Naturally the sock is somewhat shorter with a foot inside, but just how much shorter depends upon the width of the foot. Also, the soft and elastic nature of hose, and differences in personal preferences as to looseness or snugness of fit, permit considerable latitude in choice of sock size. That is why a three-inch range in length of socks is provided, whereas the range in shoe lengths is less than two inches. Hence, it is the rigid shoe that we must take as our measure of usual variability in size of the human foot. The range of shoe size 7 to size 12 provides for a variability of foot length of only one and two-thirds inches; between widths of *A* and of *E* there is a range of two-thirds of an inch.

### The Trunk Line

Now we arrive at the clothing that covers the trunk of the body and hence must encompass possible obesity as well as fundamental frame size. So far as men's clothing is concerned, we leave behind at this point most of the esoteric sizing systems. For, with

one exception — pajamas — men's clothing worn on the trunk is measured in inches.

A consideration of trousers provides a logical transition here. One dimension of trousers, the inseam, is determined by body frame size; whereas the other, the waistline, is affected by obesity if present. The inseam is the length of the seam from crotch to end of the leg. Trousers are provided with inseams whose lengths range from 29 to 36 inches. In contrast, waist sizes go from 30 to 44 inches. Thus the inseam has a range of seven inches against a waistline variation twice as great.

When furnished as part of a suit, trousers are made in a median waistline size approximately corresponding to that of the coat, and are altered as necessary. Hence suit sizes are, in fact, coat sizes which represent the perimeter of the chest, in inches. The range provided is 36 to 44 inches. This range is smaller than that of the trouser waistline, emphasizing the fact that the male chest is less subject than the abdomen to accumulation of fat.

Like-coats, undershirts and pajamas are provided in chest sizes from 36 to 44 inches. Undershirts are measured directly in inches: in recognition of the casual appearance acceptable in the privacy of the bedchamber, pajamas are made in only four sizes, lettered *A* to *D*, to cover the same range.

Undershorts are made in waist sizes 30 to 44, the same as trousers. Union suit underwear introduces a new dimension, cleverly contrived to give a combined indication of body frame size and possible obesity. This is *trunk* size, in inches, determined by running a tape measure over one shoulder and through the crotch. Union suits are provided in trunk sizes of 58 to 74 inches, a range two inches greater than that of trouser waistlines.

H. Armstrong Roberts

## MEN'S APPAREL

### Size Range in Mail Order Catalogue

Item	Quantity Measured	Smallest Size (Inches) <i>S</i>	Largest Size (Inches) <i>L</i>	Mean Size (Inches) $M = \frac{1}{2}(L + S)$	Absolute Range (Inches) $R = (L - S)$
<b>A. WORN ON THE EXTREMITIES</b>					
Hats	Perimeter of head	21	24	22½	3
Gloves	Perimeter of hand at knuckle	8	11	9½	3
Socks	Length of foot, flat	10	13	11½	3
Shoes	{ Length of foot Width of foot	9½ 3½	11½ 4½	10½ 3½	1½ ¾
<b>B. WORN ON THE TRUNK</b>					
Coats and Undershirts	Perimeter of chest	36	44	40	8
Trousers	{ Perimeter of waistline Length of inseam	30 29	44 36	37 32½	14 7
Shorts	Perimeter of waistline	30	44	37	14
Underwear	Trunk	58	74	66	16



Ewing Galloway, N.Y.

*In footgear we encounter the most remarkable of the several systems of size designations used for human apparel.*

In recapitulation, then, we see that apparel worn on areas where fat rarely accumulates has size ranges of but a few inches. Where obesity is provided for, as in waist or trunk measurement, the range is as great as 16 inches. Hence the data on clothing sizes show the human organism, barring obesity, to be highly uniform in size.

### **Think No Bed Too Narrow**

Furniture is a part of man's physical environment that needs to fit him much less intimately than clothing. Thus everyone is expected to adapt himself to chairs which have seats 18 inches from the floor; for this is the seat height of the standard straight chair. As a result, when seated, short persons may find that their feet do not quite touch the floor. Conversely, people who are at all taller than average can achieve comfort in the standard chair only by sprawling their legs well out in front.

Beds are also made in standard sizes. Here, though, short people have no trouble; they simply leave the lower portions of their beds vacant. But pity the tall man where sleep is concerned! Standard mattresses are 74 inches long, leaving a 72-inch man precious little room for his pillow. In his own home he may provide himself with a special 80-inch mattress and a bed to hold it: these are available from stock but anything longer has to be made to order. Away from home the tall man can only hope to find a wide bed and sleep crosswise.

In theaters, trains, busses, and airplanes the displacement of the human body has significance transcending considerations of mere comfort. For the

number of bodies that may be crammed into a given space determines the pay load, and hence the income of theaters and transportation operators. The degree of squeezing which the customers will endure in such situations seems to be inversely related to the time they have to spend there. This relationship is neatly demonstrated by the capacities of railroad passenger cars of various types.

The standard Pullman, or first-class railroad chair, car seats some 30 people, riding two abreast. Coaches used for long runs, with seats far enough apart so that they may be turned down into a reclining position but with four seats abreast, hold twice as many passengers.

But coaches recently designed for commuter runs, and made with *five* seats abreast, accommodate 130 seated passengers! Thus from 30 to 130 human bodies in the seated position can be considered to be the capacity load for a railway car. Apparently, for all his uniform size, the human being is extraordinarily compressible.

In earlier days, when man depended upon physical prowess much more than is now commonplace, physical size had its virtues. Outsize men were prized for warfare as well as for their general strength and assumed physical endurance. When each family or small group of individuals was essentially a self-contained unit, the disadvantages of deviating from the norm were of little consequence. Today, however, a technological society depends very heavily indeed upon a degree of standardization which applies as readily, and as ruthlessly, to the human being as to the manufactured article. In striving toward the average, or mean, value, certainly no virtue goes with size.



Ewing Galloway, N.Y.

*Clothing that covers the trunk of the body . . . must encompass possible obesity as well as fundamental frame size.*



# Biological Warfare

## —Menace or Myth?

*A Distinct Possibility in the Hands of a Malefic Enemy,  
Germ Warfare Is Less Threatening Than Some Allege.  
Its Baleful Effects Can Be Minimized by Preparedness*

By JAMES A. TOBEY

ON November 4, 1941, about a month before their treacherous attack on Pearl Harbor, the Japanese bombed Changteh in the province of Hunan. At the time, this military action did not seem to be unduly significant, and yet certain of its baleful and noxious effects are being felt throughout the world today, more than a decade later.

Shortly after this ardent bombardment in 1941 there broke out, in the Chinese province of Hunan, a severe epidemic of bubonic plague. This terrible disease, known in history as the Black Death, has been, and is, a frequent and often violent visitor in many parts of China, but it had not been seen in Hunan for a number of years.

The Chinese promptly decided that the bombing and the pestilence were more than a mere coincidence. In March, 1942, Wang Shih-chieh, the Chinese Minister of Information, vehemently accused the Japanese of having deliberately employed germ warfare in Hunan. He stated that he possessed irrefutable proof, obtained after exhaustive investigation, that the odious Japs had dropped plague-infected materials in porcelain bombs which had been manufactured in Manchuria, and that these were the real source of the lethal outbreak in Hunan.

If this allegation be true, the incident represents the first substantial and successful use of biological warfare in history. There is, however, no conclusive evidence to prove that it is true.

It is now well established that the Japanese, like the Americans, the British, the Germans, and the Russians, had been considering and experimenting with germ warfare as early as 1941. In the Hunan episode, nevertheless, the Chinese never were able to produce any actual bacilli from the objects used in the bombing. The accusers also seem to have overlooked the undeniable scientific fact that bubonic plague is disseminated naturally to man only by certain types of fleas carried by plague-infected rats. In the field, this disease never has been spread to man by infected grains, bits of cloth, or other fomites.

Now comes the dramatic sequel to this Hunan story. Some 10 years after the incident the Chinese Communists had come into possession of the files of the erstwhile Nationalist Ministry of Information. In culling over this material, a shrewd and sinister Red propagandist evidently came across the vivid reports of the Hunan affair. Here he found grist for the usual malicious and hypocritical Communist propaganda mills. Late in 1951 Peiping fraudulently accused the

"American Imperialists" of employing germ warfare in North Korea. In this area, and in Manchuria, the plague has been rampant, due to war conditions and the inefficiency of the Chinese Communists in sanitary matters.

This first canard of the Communists did not attract much attention. A year ago it was a cloud no bigger than a man's hand, but in the course of time it has become a big, black cloud, tinged with red.

Early in 1952 a vigorous and vicious campaign to spread the false charges, that germ warfare had been employed by United Nations forces in Korea, was launched by the Chinese and Russian Communists. By sheer force of constant and loud repetition this fatuous lie has grown in volume and, to a limited extent, in influence. This absurd accusation has, of course, been denied by responsible American officials, and it is further discredited by the fact that the Russians, through the ineffable Yakov A. Malik, have vetoed all proposals for impartial investigations of the facts by neutral scientific organizations, such as the International Red Cross and the World Health Organization.

As a matter of fact the Soviet Union itself has been suspected and even accused of using biological warfare. In 1947 an epidemic of cholera broke out in Egypt, where this deadly disease had not occurred in epidemic form for about half a century. Before the outbreak was controlled, with aid from the American-supported World Health Organization, it had caused some 20,000 cases and many thousands of deaths. In our own country the charge was made by certain irresponsible commentators that: (1) the Russians had been working on germ warfare, and (2) there was something highly suspicious about this cholera epidemic in Egypt. Actually, evidence to support this innuendo is no better than in the case of the Hunan affair. The cholera was imported from India, where it is endemic, and it is unlikely that the Russians were involved in any way, even though it may be conceded that they are morally and scientifically capable of such a crime.

Neither bubonic plague nor Asiatic cholera is particularly well adapted for widespread biological warfare, although cholera could be employed by saboteurs in domestic water and food supplies. It is said that, in World War I, the Germans attempted to spread cholera in Italy, but without any appreciable success. In that war German saboteurs managed to infect a few American army horses with glanders, but

this was a relatively crude and trivial event in the annals of biological warfare. So far as is known, this method of unconventional warfare was not attempted during World War II.

The intentional use of pathogenic organisms to harm an enemy is a possibility in the future, nevertheless, which it would be folly to ignore. Among the many hundreds of disease-producing micro-organisms are at least a score of viruses, bacteria, rickettsiae, parasites, fungi, and their toxic products which are particularly well suited for germ warfare on an extensive scale against man, animals, and plants; what is equally important, the means to use them have been developed. When we are confronted by an unscrupulous, amoral, and barbaric enemy, biological warfare affecting civilians as well as the military is a contingency for which we must be adequately prepared.

The United States is ready to meet this exigency, although our preparations could be improved in certain respects. This country has been alert to the possibilities or probabilities of biological warfare since 1941, although extensive and effective research on the problem was not begun until 1944. Official investigations, concerned with both the offensive and the defensive aspects of the subjects, are under the aegis of the Chemical Corps of the United States Army, with the advice and assistance of the Surgeon General. The work is being conducted by several thousand qualified scientists at a large military installation in the East and at proving grounds in the West; many noteworthy results have been achieved, some of which have been published, and some of which remain veiled in the shroud of secrecy.

Experts who have been studying this important matter know a great deal about biological warfare,

but their information seeps slowly to the general public and to the workers in the field who may have to cope directly with such warfare if it occurs. Literature on the subject has been issued by the Federal Civil Defense Administration, Washington, D.C.\* and deserves perusal by all concerned, which is everyone. Unlike the moderate tone of this material, some of the newspaper stories on this topic have been highly sensational and exaggerated.

In broad outline the essentials of biological warfare are not difficult to comprehend. But an understanding of such matters, on the part of the public, can do much to build up resistance to, and alleviate the effects of, biological hazards should they be employed by our enemies.

Biological warfare, if employed against us, could be launched in several ways. Dangerous germs could be sprayed in clouds over our large population centers by hostile aircraft or submarines equipped with special devices for this nefarious purpose. Pathogenic materials could be introduced into domestic water and food supplies, into air-conditioning systems in large public buildings, and in numerous other ways by a legion of saboteurs and fifth columnists, who are probably organized and ready for this task when the time comes.

Enemy aircraft and submarines would have to penetrate our antiaircraft and coastal defenses, of course, a feat which is not as simple today as it was at the times of the sneak attacks by the Japanese on Pearl Harbor and of the Germans on Bari in Italy in 1944. If the hostile craft managed to get through, they could release aerosol bombs from considerable distances, each packed with millions of deadly germs, mixed with suitable powders to help carry them to the victims on the ground.

The success of such an attack would depend upon a number of factors, including the nature and stability of the organisms, the height or distance at which they were released, the atmospheric conditions at the time, the vigilance of our civil defense and public health authorities, and the state of preparedness of the public itself. In any event, such a biological warfare attack definitely would not cause the immediate deaths of large numbers of persons, no matter how favorable to our enemy were the conditions.

*The first line of defense against biological warfare is the prevention of massive attacks and actions by saboteurs; this is a responsibility of our military and security agencies.*

Boeing Airplane Company



\* Health Services and Special Weapons Defense, Federal C.D.A. Publication No. AG-11-1, 1950.

What You Should Know About Biological Warfare, Federal C.D.A. Publication No. PA-2, 1951.



At best only a fraction of the biological agents thus disseminated by an enemy would reach the intended victims, and only a fraction of the persons exposed would succumb to the disease or diseases. Of course, these fractions might be large or small, according to the circumstances in the particular case, but in any massive biological warfare attack there is bound to be a large amount of waste. Some of the germs are lost in the explosion, others are dispersed by wind and rain, some may be rendered innocuous by sunlight and dryness, and many would fall upon fallow ground. Most microbes perish quickly when deprived of the warmth and nurture of living hosts such as man, animals, birds, and insects.

If the germs reached the population and were breathed in or swallowed by a considerable number of persons, only those who were susceptible and not immune to the maladies would contract them, and after an interval of time, known as the incubation period, would display the symptoms. If unrecognized or unchecked these diseases might spread to others and become epidemic, causing many cases and some fatalities. There is no reason, however, why any disease thus spread should not be quickly recognized and adequately controlled in this country.

A resourceful enemy probably would use not one but several pathogens in biological warfare, so as to cause mixed infections which would tend to confuse the physicians and terrify the public. He would, if possible, select little known diseases with rather long incubation periods, and preferably those which are severe and disabling but not necessarily fatal. It is good military strategy to cripple and incapacitate rather than to kill, since this procedure requires the valuable services of numerous individuals, other than those directly afflicted, and many facilities for the care of the sick.

Among the many biological agents which more or less meet these specifications, and are readily available to an enemy, are the viruses of influenza, poliomyelitis, psittacosis (parrot fever), and encephalitis; the Rickettsia of typhus fever and Q fever; the bacteria of typhoid fever, dysentery, tularemia (rabbit fever), and anthrax; the fungi causing actinomycosis and histoplasmosis; the toxin of botulism; and numerous others. It is extremely unlikely that the enemy possesses any "mystery" germs or maladies with which our scientists are not familiar, but it is likely that he would try to spread certain scourges by unnatural rather than by natural methods. Laboratory accidents have shown that certain viruses and other organisms which are normally spread to man only by insect vectors, such as mosquitoes, fleas, lice, and ticks, can cause disease by inhalation of virulent organisms.

When and if biological warfare is used against us, it seems improbable that it will be employed solely as a separate weapon, but rather that it will come in conjunction with other types of unconventional warfare, such as atomic and chemical attacks. As a matter of fact, the modern atomic bomb is tremendously more devastating to life and property than germ warfare could possibly be, and the so-called nerve gases of chemical warfare are far more lethal. If, however, you add germ warfare to the destruction,

disorganization, and panic resulting from these holocausts, you have a fertile field for it, especially during the mass migrations, overcrowding, exposure, breakdown of public utilities, undernutrition, and other hazards of such disasters.

The United States has dealt competently with other calamities, such as earthquakes, floods, hurricanes, explosions, and fires, which have been as dangerous to health as is warfare. With proper organization and intelligent preparation we can deal just as effectively with the emergencies created by atomic, radiological, chemical, and biological warfare. During World War II the British maintained an alert and efficient civil defense organization which reduced casualties from the constant and terrible bombings to a minimum, but the Germans and the Japanese had no such organizations and their bombing casualties were proportionately very much higher.

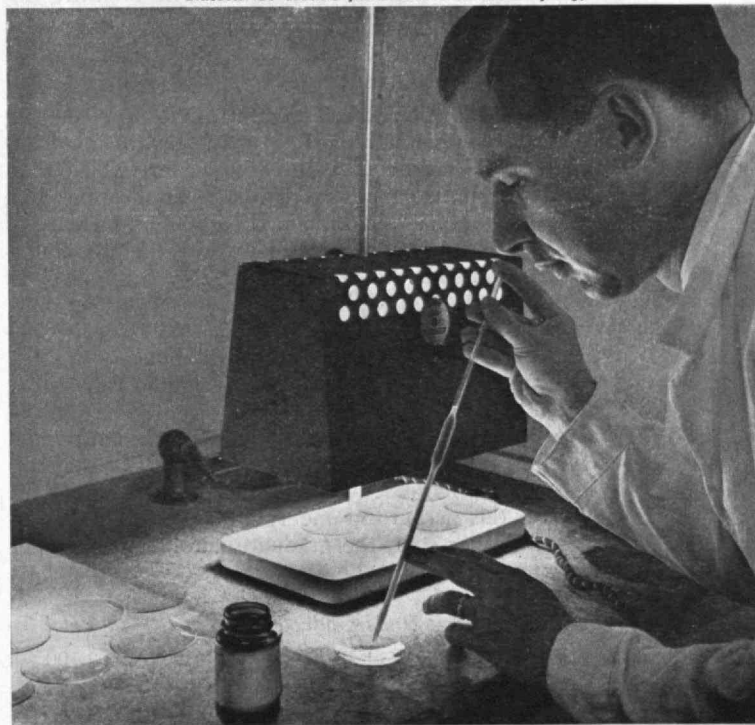
### **Protective Measures**

Obviously, the first line of defense against biological warfare is the prevention of massive attacks and actions by saboteurs; this is a responsibility of our military and security agencies. If the first fails, the second line of defense is the immediate detection of specific pathogens in the atmosphere following an attack, which is a matter for our public health laboratories. The third essential measure is the prompt recognition and control of all cases of disease by our physicians, sanitary engineers, and public health departments, following the same procedures which are routinely in effect every day in the United States.

These are all measures which would be undertaken by duly constituted authorities for the protection and  
(Concluded on page 66)

... the second line of defense is the immediate detection of specific pathogens in the atmosphere following an attack, which is a matter for our public health laboratories.

Russell C. Atkins from Merck and Company, Inc.



# THE INSTITUTE GAZETTE

PREPARED IN COLLABORATION WITH THE TECHNOLOGY NEWS SERVICE

## Report of the President

### *In the Face of a World-Wide Shortage of Scientists and Engineers, M.I.T.'s Responsibilities in Improving Student Life and Educational Environment Are Closely Examined*

THE responsibilities of the Institute in the face of a world-wide shortage of technical personnel was the major theme of the President's Report to members of the M.I.T. Corporation at their meeting on October 6. The complete text of the President's Report is worthy of careful study by Technology Alumni. The Review is pleased to present here a condensation of Dr. Killian's report.

"Engineers and scientists continue to be in short supply," said James R. Killian, Jr., '26, President of M.I.T., in the opening sentence of his report, "not only in the United States but throughout most of the world. In the United States the shortage has been aggravated by our defense program but, aside from this emergency demand, the increasing technological complexity of industry and our living environment keeps the demand curve rising."

As against a rising demand for engineers and scientists, President Killian took note of the "unexpected and ill-timed drop in the number of young men entering engineering and certain branches of science" for the past several years. The steadily decreasing enrollment seems to have been partially checked this year, at least at M.I.T. Said Dr. Killian:

What has been our experience at M. I. T.? Our entering class this September numbers 943, an increase of about 200 over last year. I must confess that this is a larger class than we had planned to take, even though applications had greatly increased. We had planned on 800, an increase of about 70 over the previous year. However, the usual number of cancellations did not occur, and we find ourselves with the largest class we have ever admitted at one time. We selected this freshman class out of a total of over 3,000 applicants, and the admissions office staff believes that the average quality of the men admitted is significantly higher than that of the preceding two classes.

If we compare last year's enrollment with the last normal year before World War II, we find that M.I.T.'s total student body had increased from 3,100 to 4,874, or 57 per cent. Over this period the undergraduate enrollment had increased 33 per cent, the graduate enrollment, 139 per cent. Here are the figures:

	Undergraduate	Graduate	Total
1939-1940 . . . .	2,379	721	3,100
1951-1952 . . . .	3,154	1,720	4,874
1952-1953 (estimated)	3,200	1,900	5,100

This comparison points up the significant increase in the number of graduate students. While M.I.T.'s growth in graduate students has been somewhat above the national growth, there has been an increase in graduate study for the country as a whole. This reflects the growing maturity of our schools of science and engineering . . . While the enrollment of the Institute was increasing 57 per cent over the 13-year period, the enrollment in engineering courses increased 43 per cent; in science courses, 113 per cent; in architecture and planning, 90 per cent; and in the field of management, 29 per cent.

Note particularly the shifting pattern of the courses. [See "Comparison of Course Enrollment" on opposite page.] Electrical Engineering increased from 434 to 908, over 100 per cent. Mathematics grew from 40 to 147, and Physics from 152 to 514, both over 200 per cent. These spectacular increases reflect national trends in interests and demand, as well as M.I.T.'s developing programs in these fields. They have obviously required severe adjustments in the Institute's staff and teaching facilities. In a few fields our enrollments have not reflected increases in national demand, for example in Biology, Geology, Aeronautical Engineering, and City Planning.

The upward trend in applications for admission facilitates the management of a stabilized enrollment policy. We should seek to re-establish such a policy at the Institute. I think the record is clear that we have accepted our responsibility in meeting the shortages of scientists and engineers. I suggest that in the years ahead we continue to give primary attention to the quality of our enrollment rather than to any increase in numbers. One of the hazards arising out of the current acute demand for scientists and engineers is the temptation to permit educational standards to drop in order to increase enrollments. This is not the way to advance our science and engineering or to serve industry. . . .

In any discussion of the balancing of enrollments with placement demand in science and engineering, I believe it important to point out the probability of periods when placement will be slow. With the memory of June, 1950, still clear, we cannot assure college students in these fields that they will be eagerly sought after in any given year. A sudden demobilization or a severe cutback in the volume of defense production would most certainly result in a period of readjustment when the employment of new graduates would slacken. A recent research personnel study, soon to be published, shows that of all the scientists and engineers engaged in research and development in industry, 50 per cent are now employed on government contracts. This is but one index of the effect of our mobilization economy on the utilization of scientists and engineers.

The evidence seems to be clear, however, that for the long pull the demand for scientists and engineers will be greater than the supply provided by the present and foreseeable level of enrollments and that we should not be governed in our planning by the possibility of temporary short-term fluctuations in demand.

After thus outlining the current needs for trained personnel and the present outlook for enrollment,



President Killian dwelt upon the Institute's expanding educational program:

**The Educational Program.** The best way to recruit men with creative ability, leadership potential, and public spirit into the scientific and engineering fields is to provide an educational program that will attract such men and permit them to realize their full abilities. This provides the over-all challenge to an institution such as this, which has traditionally been at the forefront in scientific and engineering education. Toward this broad objective, we have kept our sights set on three principal targets in the past several years:

1. The maintenance of the Institute's leadership in professional education in engineering, science, architecture, and management, at both the graduate and the undergraduate level.

2. The enrichment of our program in general education and in those social sciences appropriate to an institute of technology.

3. The achievement of M.I.T.'s goal to become a residential college and the rounding out of our extracurricular activities to make them of maximum educational value to our students.

In consonance with these three aims and in order to provide the means to achieve them, we have kept our sights on still another target — the funding of M.I.T.'s independence and its future, and the provision of new educational and research facilities in order to realize new educational opportunities. In this past year we have moved ahead towards these goals. . . .

At M.I.T., we have always felt the undergraduate school to be the very core of our total program. Within our present phase, we are taking pains to make sure that we are still making creative contributions to the art of undergraduate teaching and that we are providing the best kind of environment and incentive to the teacher who teaches undergraduates with scholarship, professional standards, and inspiring skill. The teacher who can set a young man's mind on fire is an educational institution's most valuable asset. Happily, we have many at M.I.T., and we seek to give them the backing and the opportunity to exert their maximum influence. . . .

As a result of this year's discussion of flexibility versus rigidity, the Faculty has now approved as a first step toward less rigidity a plan whereby alternate groups of subjects will be offered in the first two years. None of the new versions would offer less coverage or difficulty than the courses now offered, but would, on the contrary, provide more depth, scope, and difficulty for those students who are prepared for and desire more advanced work.

. . . By bringing down into the undergraduate school more of the creative research and professional attitude of the graduate school, we have been seeking to do a better job of teaching engineering and science to undergraduates. We have been doing this in part through the use of projects, as, for example, a plant-design problem undertaken by a team of students and requiring the use of judgment in regard to the many different technical and economic aspects of the problem.

. . . Through this project concept of instruction, we have an opportunity to give our undergraduates a real taste of professional practice and to provide them with a more interesting and highly motivated program. Our drive now is to find an undergraduate equivalent for the creative experience of the graduate student — to give the undergraduate an opportunity himself to be creative in terms of his stage of development.

Another important Faculty action during the year was a reinstatement of the requirement for a bachelor's thesis or project. . . .

## COMPARISON OF COURSE ENROLLMENT 1939-1940 and 1951-1952

	1939-1940	1951-1952	Percentage change
<b>Engineering Courses</b>			
(Total)	2,167	3,094	+43
Aeronautical Engineering	218	246	+13
Building Engineering and Construction	26	94	+262
Chemical Engineering	497	482	-3
Civil Engineering	117	273	+133
Electrical Engineering	434*	908	+109
General Engineering	68	40	-41
Mechanical Engineering	455	526	+16
Metallurgy	124	218	+76
Meteorology	27	115	+326
Mining Engineering	10	—	—
Naval Architecture and Ma- rine Engineering; Naval Con- struction and Engineering;			
Marine Transportation	181	171	-6
Sanitary Engineering	10	21	+110
<b>Science Courses</b>			
(Total)	543	1,159	+113
Biology	75	92	+23
Chemistry	194	258	+33
Food Technology	16	43	+169
General Science	30	20	-33
Geology	36	82	+128
Mathematics	40	147	+268
Physics	152	514	+238
Science Teaching	—	3	—
Architecture and Planning	108	205	+90
Economics and Engineering	—	92	—
Business and Engineering			
Administration	251	324	+29
Unclassified	31	—	—
<b>Grand Total</b>	<b>3,100</b>	<b>4,874</b>	<b>+57</b>

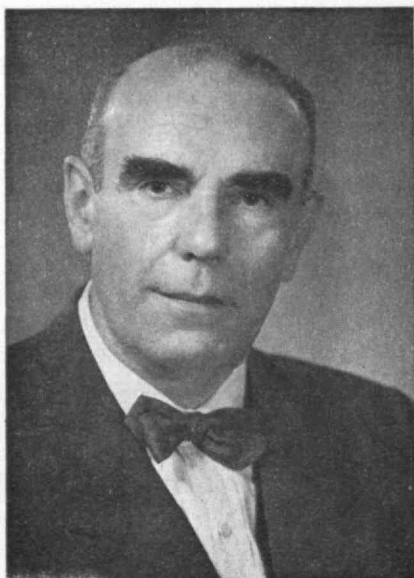
\* Including Electrochemical Engineering

**Integrated General Education Program.** During the past year, after extended discussion by appropriate committees, the Faculty approved a new four-year integrated program in general education. This core curriculum consists of a two-year introductory course required of all freshmen and sophomores followed by an elective sequence in the junior and senior years in which students will have the opportunity to elect a combination of three subjects in one of eight fields together with a fourth, or distributional, subject in a different field. . . .

The required two-year course is designed to give the student an introductory knowledge of important issues, ideas, periods and events of the past, selected on the basis of their relevance to the world today. It will emphasize the interrelation of the various humanities and social sciences as elements in human experience and introduce the student to the process of critical thought as applied in the humanities and social sciences. Practice in written and oral expression is an integral part of this basic program.

Specialization in the third and fourth years may be in one of the following fields (and in each field there is a choice of subjects): history of ideas; political, social and economic history; literature; music; economics; political science and international relations; labor relations; and psychology. . . .

**School of Industrial Management.** This fall, the School of Industrial Management, now amply housed in the Sloan (Continued on page 54)



M.I.T. Photo

#### Laurens Troost

... has become head of the Department of Naval Architecture and Marine Engineering, succeeding Edward L. Cochrane, '20, Dean of the School of Engineering. Professor Troost gained international recognition for his work in naval architecture in the Netherlands, and in 1951 was a visiting professor at the Institute.

#### Lammot du Pont, '01

... emeritus life member of the M.I.T. Corporation and director of E. I. du Pont de Nemours and Company. In his death, on July 24, the Institute lost an able and active alumnus who had served the Corporation as a life member since 1934.



Du Pont Photo Library

## New Head for Course XIII

LAURENS TROOST, whose achievements as a naval architect in the Netherlands have won him international recognition, has been appointed professor and head of the Department of Naval Architecture and Marine Engineering at the Institute this autumn. Professor Troost succeeds Edward L. Cochrane, '20, whose appointment as dean of the School of Engineering at M.I.T. was announced in the May, 1952, issue of *The Review*.

The Department of Naval Architecture and Marine Engineering, established at M.I.T. in 1893, is the country's oldest course in this field. As head of the department Professor Troost will direct the training of a large group of civilian students, and will also have charge of the graduate course in naval construction for which all naval constructors of the United States Navy come to M.I.T. from the United States Naval Academy.

A native of Rotterdam, where he was born in 1895, Professor Troost was educated at the Delft Institute of Technology, from which he was graduated in 1919 with the degree of naval architect. His early experience was gained as a naval constructor in the Royal Netherlands Navy, in which he was engaged in the design, building, and repair of ships.

In 1929 Professor Troost was asked by the Netherlands Ship Model Basin Foundation to undertake the design, construction and operation of a large modern ship model basin at Wageningen. The basin was opened in 1932 and was operated until September, 1951, under Professor Troost's direction.

In 1946 Professor Troost served on the faculty of the Delft Institute of Technology, and devoted part of his time to reconstruction of the Wageningen model basin, which was seriously damaged during World War II. Also in 1946 he came to the United States at the invitation of the United States Navy to visit a number of laboratories in this country. In 1951 he was invited by M.I.T. to join its staff as a visiting professor of naval architecture, and he lectured at the Institute for the autumn term in that year under

a Fulbright award. Later he became a temporary member of the staff of the University of California at Berkeley.

Professor Troost served as a lieutenant and a captain in the Netherlands Artillery Service Reserve from 1916 to 1945, and was a commander in the Netherlands Naval Reserve from 1945 to 1948. In 1937 the Queen of the Netherlands made him an officer of the Order of Oranje-Nassau, and in 1949 he received the gold De Ruyter Medal for outstanding services in the field of shipping and shipbuilding.

He is a member of the Royal Dutch Institute of Engineers and chairman of its section for engineering and naval architecture. In 1947 he founded the Dutch Shipbuilding Research Association and was its first chairman. He is also a long standing member of the Society of Naval Architects and Marine Engineers, the Institute of Naval Architects, the North East Coast Institution of Engineers and Shipbuilders, the Association Technique Maritime et Aeronautique, and Schiffbautechnische Gesellschaft. Professor Troost has contributed many papers on ship hydromechanics to these societies. He is one of the authors of the handbook *Resistance, Propulsion and Steering of Ships*. In 1933 he organized the first International Conference of Towing Tank Superintendents in The Hague, and out of that conference grew a permanent organization of which the sixth congress was held in Washington, D.C. in 1951.

## Lammot du Pont: 1880-1952

LAMMOT DU PONT, '01, emeritus life member of the M.I.T. Corporation and director of E. I. du Pont de Nemours and Company of Wilmington, Del., died on July 24. Mr. du Pont, a term member of the Institute's Corporation from 1928-1933, was elected to life membership in 1934. He became an emeritus life member in August, 1951, at the age of 70.

Born in Wilmington on October 12, 1880, Mr. du Pont received the degree of bachelor of science from M.I.T. in 1901 and then served for one year as a draftsman in Philadelphia. After 1902, however, he devoted



his entire business life to the du Pont de Nemours Company, which, under his presidential direction, developed from a specialized producer of industrial explosives to one of the world's largest and most diversified chemical corporations. He was first employed there in black powder manufacturing operations and in 1914 became director of that department. When the company was reorganized the following year, he was elected a director and member of the Executive Committee; in 1916, a vice-president; in 1926, president; and in 1940, chairman of the Board of Directors. He had also been chairman and vice-chairman of the Executive Committee and a member of the Finance Committee.

Mr. du Pont's other activities included service as: president of the Manufacturing Chemists Association; director of the General Motors Corporation, National Association of Manufacturers, United States Chamber of Commerce, and Wilmington Trust Company.

Mr. du Pont, as a member of the Institute's Corporation, had been active on the Committee on Membership as well as on departmental Visiting Committees in Chemistry, Chemical Engineering, Civil Engineering, Hygiene, Biology, and the Division of Industrial Cooperation.

## Professor of Finance

THE appointment of Eli Shapiro as Professor of Finance at the Institute was announced during the latter part of September by E. P. Brooks, '17, Dean of the School of Industrial Management. Dr. Shapiro will be in charge of teaching and research in corporate finance, consumer credit, and the interrelation of business financial policy and the general economy.

Professor Shapiro received the degree of bachelor of arts from Brooklyn College in 1936, and the degrees of master of arts and doctor of philosophy from Columbia University in 1937 and 1945.

From 1936 to 1941 Dr. Shapiro was an instructor in economics at Brooklyn College. During this same period he also served as research associate, Financial Research Program of the National Bureau of Economic Research in 1938-1939; consultant to the Financial Research Program of the National Bureau of Economic Research from 1938-1942; economic analyst in the Division of Monetary Research of the Treasury Department in 1941-1942; and economist for the research division of the Office of Price Administration in 1941-1942.

On active duty with the United States Navy from July, 1942, until February, 1946, Dr. Shapiro received commendations for his work in scheduling tanker requirements for the Pacific Theater, and for statistical studies for the Navy Manpower Survey. He also served with the Reparations Commission of the Office of Strategic Services.

Following his war service, Dr. Shapiro returned to Brooklyn College as assistant professor of economics. In 1947 he was appointed assistant professor of finance at the School of Business of the University of Chicago, where he was named associate professor of finance in 1948 and professor in 1952.

Dr. Shapiro has written extensively for professional periodicals on banking and finance and his books include *Development of Wisconsin Credit Union Movement* and *Money and Banking*, which he wrote with William H. Steiner. He is also an associate author of R. A. Young's *Personal Finance Industry and Its Credit Standards*.



M.I.T. Photo

found expansion quite as imperative as M.I.T., and has just completed enlargement of its quarters. A vastly enlarged book section was completed in time for the opening of fall classes. High light of the dedication ceremonies on September 9 was the cutting of the traditional ribbon by President Killian, as directors and employees of the Harvard Coöperative Society watch—in anticipation of the annual rush of the Institute's largest class of students.



## "The Coop" Expands

As effective as any classroom in contributing to the education of Technology students is the Technology Branch of the Harvard Coöperative Society, Inc., affectionately dubbed "The Coop." With a constantly expanding student body to cater to, the Coop

## D.I.C. Promotions

Two administrative promotions in the Division of Industrial Cooperation at M.I.T. were announced during the summer by Nathaniel McL. Sage, '13, Director of the Division at the Institute. F. Leroy Foster, '25, Assistant to the Director of the Division, has been named associate director, and Paul V. Cusick, assistant fiscal officer of the Division, becomes fiscal officer and assistant director.

Born in Avon, Mass. in 1902, Dr. Foster received from M.I.T. the degrees of bachelor of science in 1925, master of science in 1930, and doctor of science in 1939. Dr. Foster joined the staff of the Institute in 1925 as an assistant in mining engineering and ore dressing in the Department of Mining and Metallurgy. In 1927 he became an instructor in mining, and in 1931, assistant professor — a post which he held until the Department of Mining was discontinued in 1940. From 1934 to 1938 he was in charge of the Institute's Summer Mining Camp in Dover, N.J., and in 1939 he was appointed assistant to the director of the Division of Industrial Cooperation.

During World War II, Dr. Foster served with the War Production Board as a member of the Research Laboratories Industry Advisory Committee. This committee, which supervised the proper handling of priorities for research laboratories, contributed in significant measure to the total war effort. He is a member of the Boston section of the American Institute of Mining and Metallurgical Engineers which he has served in many important posts, including those of secretary, vice-chairman, and chairman. He is also a member of the American Geophysical Union, and from 1947-1950 he served as director of the Cambridge Chamber of Commerce.

Mr. Cusick joined the staff of the D.I.C. in 1944 as chief accountant and has been assistant fiscal officer since 1947. Prior to coming to the Institute he had held posts with the Boston Elevated Railway and with Patterson, Teele and Dennis.

A graduate of the Bentley School of Accounting and Finance in 1939, Mr. Cusick has been a member of the National Association of Cost Accountants, Boston Chapter, since 1942. A member of the Massachusetts Junior Chamber of Commerce since 1945, he was elected its president in 1950. In 1951 he was named a director of the U.S. Junior Chamber of Commerce.

## International Communications

RESEARCH in the Institute's newly established Center for International Studies received substantial support from The Ford Foundation in two major grants to M.I.T. amounting to \$1,000,000. In making the announcement shortly after the opening of the new school year, President Killian said:

The development of the Center for International Studies, and arrangements with The Ford Foundation for its generous and pioneering support, have been handled for the Institute under the sound and imaginative guidance of Julius A. Stratton, '23, Provost, and of Max F. Millikan, Professor of Economics, who is director of the Center. The creation of the Center marks an increased attention at M.I.T. to the economic and social implications of science and technology.

The program of the Center is interdepartmental in character. It affords opportunities for research to the Departments of Economics and Social Science and of English and History, and touches at many points upon the individual interests of Faculty members in the several Schools of the Institute. Studies undertaken since the beginning of the program have been of basic academic interest and in large part directly related to important problems facing the country.

The funds will enable the Center for International Studies to undertake two important projects. A grant of \$875,000 will provide support for a study of international communications over a period of four years. Under this program, the Center will study the nature of information and ideas that reach various kinds of people in foreign countries, the channels by which they are conveyed, and the factors — cultural, psychological, institutional, political, economic — which affect the way people interpret the information and the way they react to it. Since earlier studies have emphasized mass media, such as radio and the press, special attention will be given to other channels.

A second grant of \$125,000 for a one-year period will enable the Center to conduct a research program in the closely related field of economic development and political stability, a subject of major interest to the Department of Economics and Social Science. It will include studies of ways in which foreign countries might employ their resources to raise their living standards. Studies of the political, cultural, institutional, and psychological factors that affect economic growth are also contemplated.

## Robert K. Lamb: 1905-1952

ROBERT K. LAMB, lecturer in the Department of English and History at M.I.T., died on August 26. Dr. Lamb was the son of Dr. Robert S. Lamb and the late Sarah Lamb of Washington, D.C., where he was born on May 17, 1905. He was educated in the high schools of Washington and was graduated from Phillips Exeter Academy in 1924, when he entered Harvard University, from which he received the degree of bachelor of arts in 1929, the degree of master of arts in 1933, and his doctorate in philosophy two years later.

He served as secretary to the University for Information at Harvard from 1928 to 1932, when he be-

came a tutor and instructor in economics for four years. He lectured at Harvard in the field of general education again in 1948. He had served as assistant professor and later as associate professor at Williams College for three years beginning in 1936. Dr. Lamb was legislative representative of the United Steel Workers of America from 1943 to 1947. From 1938 to 1940 he was a special investigator for the Senate Committee on Education and Labor. Beginning in 1943 for four years he was staff director of the House Committee on Interstate Migration.

Dr. Lamb joined the Institute staff as a research associate in 1948 and was appointed a lecturer in 1949, while part-time instructor in English.

(Continued on page 42)



# BUSINESS IN MOTION

## *To our Colleagues in American Business ...*

Everyone who has to deal with water and steam is concerned with the reduction of corrosion. Power plants, for example, spend large sums annually to treat boiler feed water, and condenser operation is watched carefully. Because of this, the Revere Research Department over a long period of years has studied intensively the causes of corrosion, and how corrosion can be reduced, as it usually can.

Recently the Revere Research Department was asked to investigate the failure of Admiralty metal tubes after some five years of use in a condenser. The user felt such tubes should last longer under average conditions. Samples from failed tubes were sent to the laboratory, and subjected to physical, metallurgical, chemical and microscopic tests. It was found that the outer surfaces were pitted, thinned, grooved and cracked. In some places corrosion had completely destroyed the tube wall. Inside, there was but little pitting of the underlying metal. Thus, it was evident that the destructive process took place on the outside, or steam side of the tube.

The chemical analysis of the outside scale was evidence that the excessive corrosion was due to carbon dioxide and other non-condensable gases carried along with the steam. It is not unusual to have these and other corrodents present in damaging amounts in the air-ejector system, whereas they are not injurious elsewhere.

Photomicrographs were then taken of sections through the cracks. It was found that the cracks originated in corrosion pits on the outside of the tube, and progressed inward. In doing so they broke across the grains of the metal rather than following the

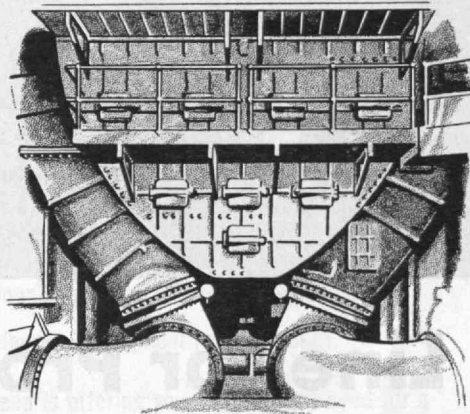
grain boundaries. This transgranular pattern showed that the pits created stress-concentration points of weakness. Other characteristics of the microstructure confirmed that failure was due to a combination of corrosion and fatigue. The conclusion was, of course, that not only were there corrodents in the steam, but that in addition the tubes were subject to vibration.

Given these facts, the remedies were not difficult. The copper-base tube alloy that generally possesses the greatest resistance to the non-condensable gases responsible for such corrosion is 5% aluminum

bronze. This is somewhat more expensive per pound than Admiralty metal, but in this case when balanced against the expected extension of life, the ultimate cost became favorable. It was also recommended that steps be taken to reduce tube vibration materially by installing a baffle in the steam inlet. Finally, it was pointed out that many operators find it good practice to discharge the after-condenser drain to the sewer, instead of returning it to the system,

thus substantially reducing the amount of carbon dioxide, ammonia and other corrodents in the system.

This report provides a typical example of the thoroughness with which the Revere Research Department attacks the problems that are brought to it. If you have questions concerning the selection, fabrication, or service of Revere Metals, get in touch with the nearest Revere Sales Office, through which the experience of our Technical Advisors, and if necessary, of Research, can be made available to you. And do not forget that other suppliers to industries of all kinds also operate laboratories upon whose knowledge you can call. It will pay you to do so.



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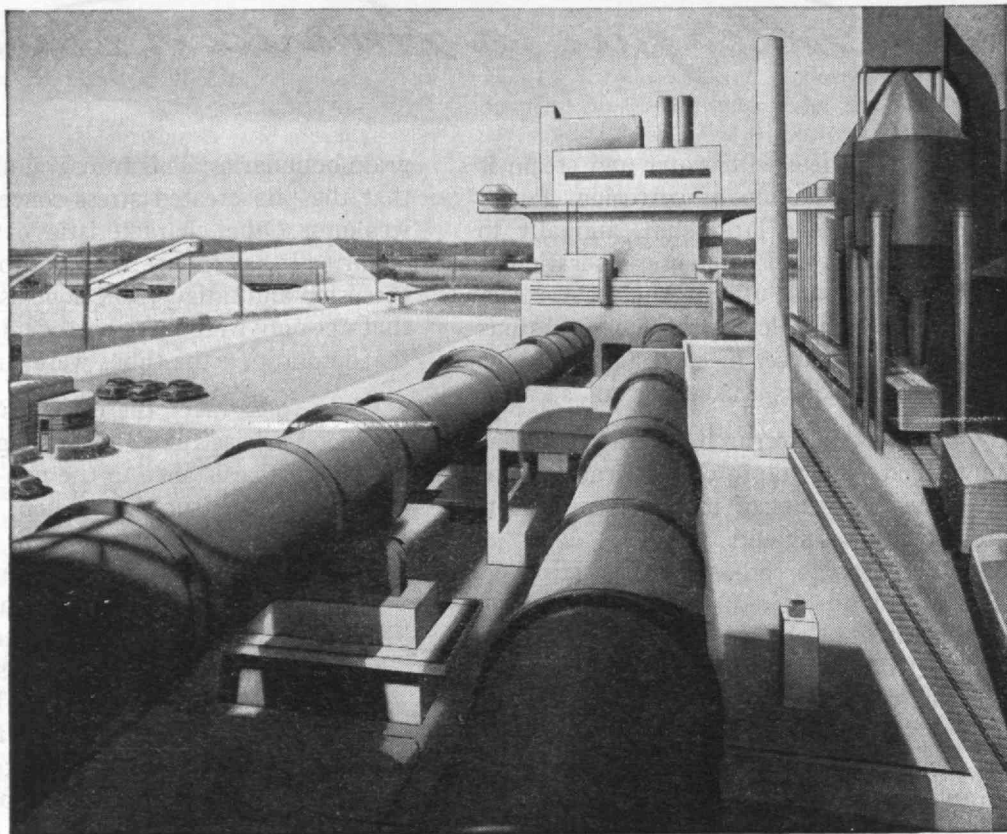
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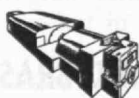
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## THE INSTITUTE GAZETTE

(Continued from page 38)

### Record Enrollment

WITH an entering class of 945 freshmen, and a total enrollment of 4,979 students in all classes, the Institute's body this year is the largest to enter M.I.T. An innovation this autumn was the required attendance of all freshmen at orientation exercises, beginning on Thursday, September 18, prior to the official registration on Monday, September 22, for upperclassmen and graduate students. Another change, which aims to enable new students to derive maximum benefit from their course of study, is the assignment of Faculty members as advisers to freshmen. Some 45 Faculty members have been designated to serve in this capacity, and each such adviser will be available for consultation by some 20 freshmen. In addition, senior students have also been designated to assume certain responsibilities for welfare of entering students.

The large entering class is a particularly happy omen at the present time when the demand for persons trained in engineering, science, and architecture greatly exceeds the number of graduates.

The Class of 1956 had its first gathering, as a group, on September 18 in Rockwell Cage. At the Freshman Dinner that evening, President Killian welcomed the new class and stated: "Freshmen entering college always have to feel their way through a certain amount of murk and fog, and so will you. The objective is to find your way out as soon as possible, and it is the purpose of this week end to help you." Dr. Killian

also spoke of the freedom and responsibilities facing the new students at the Institute in the following words:

In coming to college, particularly to M.I.T., you have assumed responsibilities not only to be your own boss and to take responsibility for your intellectual development but to accept your proper share of the responsibility of governing this student community. . . . Here at M.I.T. we believe in and have student self-government which is genuinely free and independent. . . . You will find this accent on student freedom and responsibility to be one of the hallmarks of M.I.T. . . . The freedom we espouse is not freedom to do as one likes if this injures someone else, or to live an unbridled existence, or to be selfishly thoughtless of one's neighbor. The freedom we espouse does rest upon the principle that a group of students of good will and serious purpose can join together in their own way to adjust their separate interests to a common cause. It rests upon a recognition of the basic democratic principle that each individual can serve his personal and individual needs best by making himself a part of a community that maintains standards and order for the good of all. This kind of student government is not something to which students are subject, but something of which they are a part, not an authority which they petition, but a common responsibility which they share.

### Liaison with Industry

WILLIAM R. WEEMS, '35, Industrial Liaison Officer at the Institute, has been appointed director of M.I.T.'s Industrial Liaison Program, according to an announcement by Walter H. Gale, '29, Secretary of the Institute.

In his new post Mr. Weems will be in charge of a program that has pioneered in achieving a close cooperation between industrial and academic research

(Continued on page 44)



Sidney B. Moody

Reminiscent is this photograph of the celebration of the Class of 1902 at its 50th reunion which was held at the Coonamessett Ranch Inn in North Falmouth. The 35 classmates shown in the illustration forgathered there for the week end preceding Alumni Day which was held on Monday, June 9. Seated in the front row, from left to right, are: Frederick H. Hunter, Redfield Proctor, Dr. William J. Mixer, Harold A. Everett, Henry H. Saylor, Claude E. Patch, Stephen A. Gardner, Benjamin E. McKechnie, Burton G. Philbrick, J. Albert Robinson, and Grant S. Taylor. In the back row, standing, from left to right, are: William M. Bassett, Russell B. Lowe, Dana H. Fisher, Dr. Charles G. Mixer, Charles W. Kellogg, William R. Greeley, Edwin E. Nelson, Alfred W. Allyn, James C. Howe, Francis B. Galaher, Lewis E. Moore, Wilbur L. Vatter, Chauncey P. Manning, Royal L. Wales, John R. Marvin, Irving W. Reynolds, Albert A. Haskell, Arthur P. Hall, Frank H. Smith, Kenneth C. Grant, Arthur L. Collier, Farley Gannett, Lester C. Hammond, and Charles F. Gardner.





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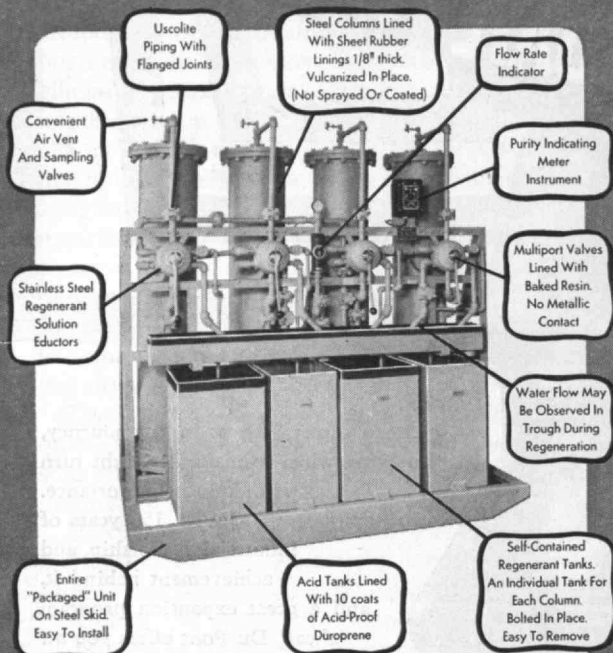
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## THE INSTITUTE GAZETTE

(Continued from page 42)

activities. In commenting on the significance of the program to American industry, Professor Gale said:

Our country's dynamic industrial economy is to a great extent a product of technological progress. This progress is fashioned in the commercial developments of our great industrial laboratories and in the creative research of our leading academic institutions.

Realizing that America's industrial leadership must continue to derive vigor from both industrial and academic sources, the Institute initiated in 1947 its Industrial Liaison Program for correlating and strengthening the work of both. This unique program affords industry a direct link with the entire range of researches at the Institute and actively attempts to bridge the gap between M.I.T.'s own creative efforts and industry's commercial development of the results. The program also assures a more realistic orientation and vigorous implementation of the Institute's basic educational efforts.

Since its establishment the program has experienced a sound and steady growth because of its success in contributing to a satisfying course of progress both in industry and at the Institute. With this growth the program has become an increasingly important vehicle of service to industry and to the nation in the fields of science, engineering, and industrial management.

Associated with the Industrial Liaison Program since 1950, Mr. Weems has a rich background of experience in administration, teaching, and research.

The son of missionary parents, he was born in Kaesong, Korea, on August 9, 1911. Sent to the United States for his higher education, he was graduated with honor from the Georgia Institute of Technology in 1933. After a short term as a flying cadet and as a graduate assistant at Georgia, he accepted a scholarship for postgraduate study at M.I.T. where he received the degree of master of science in 1935.

Following his graduate study, he worked as a development engineer on aircraft instruments at the Pioneer Instrument Division of Bendix Corporation. In 1937 he returned to the Georgia Institute of Technology where from 1937 to 1941 he was instructor and later assistant professor of aeronautical engineering.

During World War II he served in the Army Air Forces with the rank of lieutenant colonel. From 1941 to 1943 he was executive officer of the Special

(Continued on page 46)

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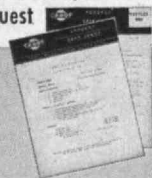
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## THE INSTITUTE GAZETTE

(Continued from page 44)

Weapons Branch at Wright-Patterson Air Force Base where he was also head of the gyroscope laboratory. In 1943 he was promoted to assistant commandant of the Army Air Forces Engineering School at Wright-Patterson Air Force Base, and until 1945 was in charge of organizing and operating this distinguished professional school which has now become the U.S. Air Force Institute of Technology.

In 1946 he returned to M.I.T. as assistant professor of aeronautical engineering and in 1948 was promoted to associate professor in that Department. Until his appointment as technical industrial liaison officer in 1950, he worked under Professor C. Stark Draper, '26 (Head of the Department of Aeronautical Engineering), in M.I.T.'s Instrumentation Laboratory as an expert on gyroscopes and similar devices.

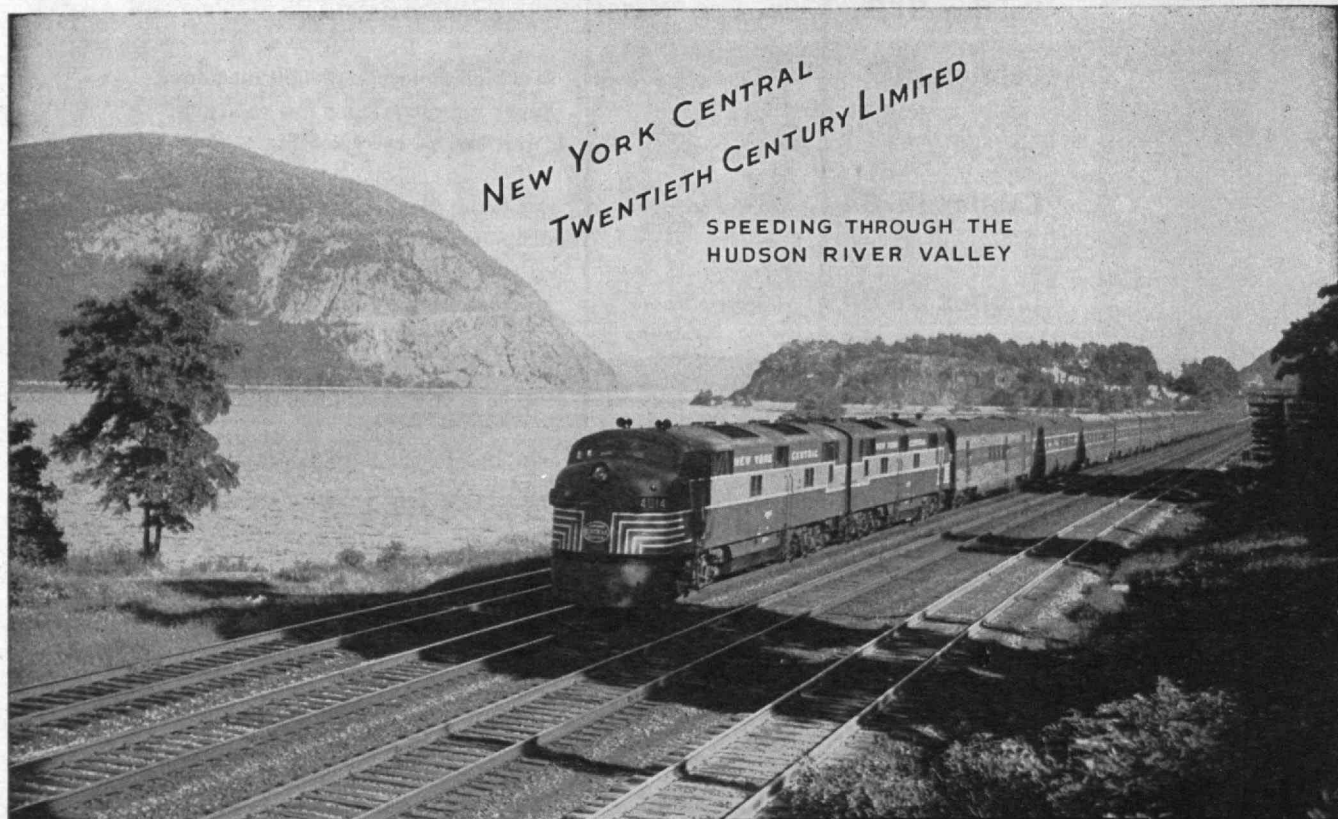
### On Matters Mathematical

MEMBERS of the Visiting Committee on the Department of Mathematics\* met on December 3, 1951, with James R. Killian, Jr., '26, President of M.I.T., George R. Harrison, Dean of the School of  
(Continued on page 48)

\*Members of this Committee for 1951-1952 were: Harlow Shapley, chairman, James M. Barker, '07, Charles A. Thomas, '24, Donald C. Spencer, '36, Claude E. Shannon, '40, Saunders MacLane, and James J. Stoker, Jr.

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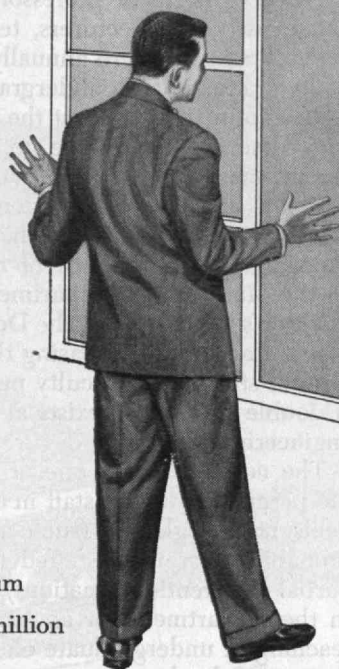


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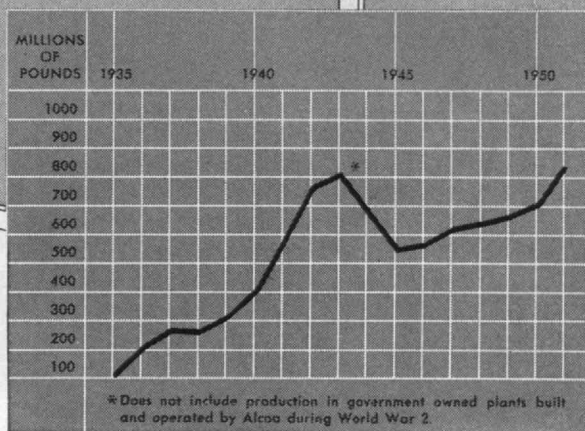
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## THE INSTITUTE GAZETTE

(Continued from page 46)

Science, and four members of the Department's staff. The report of the Visiting Committee was presented at the June, 1952, meeting of the M.I.T. Corporation and on September 9 the Institute's Executive Committee voted to approve publication of this report in The Review.

The staff of 18 of professorial rank and 35 additional instructors, lecturers, teaching assistants, and research assistants are annually engaged in teaching 2,500 graduate and undergraduate students in 87 sections of mathematics at the Institute. Of this number, 56 sections are made up primarily of first- and second-year students, 14 sections of mixed undergraduate and graduate students, and the remainder of students taking courses in intermediate and advanced subjects. Because of the heavy load placed on the Mathematics Department to teach half of the Institute's student body, the Department is faced with the desirability of increasing the size of its staff. The ratio of students to Faculty members at the Institute is double that which exists at two other well-known engineering schools.

The need exists for one or more appointments to the permanent tenure staff in order properly to cover fields now neglected (such as number theory and probability) or understaffed (such as ordinary and partial differential equations). The need also exists in the Department for an increased budget for the teaching of undergraduate elementary courses in the Summer School.

It was noted with gratification that the caliber of the work of the graduate students in Course XVIII has improved steadily during the past several years, and that the standards which the Department sets for graduate students have risen. During the last few years the number of advanced graduate courses offered by the Department has likewise increased. This growth has been of high value to the Institute's advanced students, and has also resulted in a considerable increase in the number of students who come from other institutions to take courses of study at the Institute.

Research is being conducted in the fields of algebra, analysis, cybernetics, differential equations, elasticity, hydrodynamics, and topology. The research in dif-

(Continued on page 50)

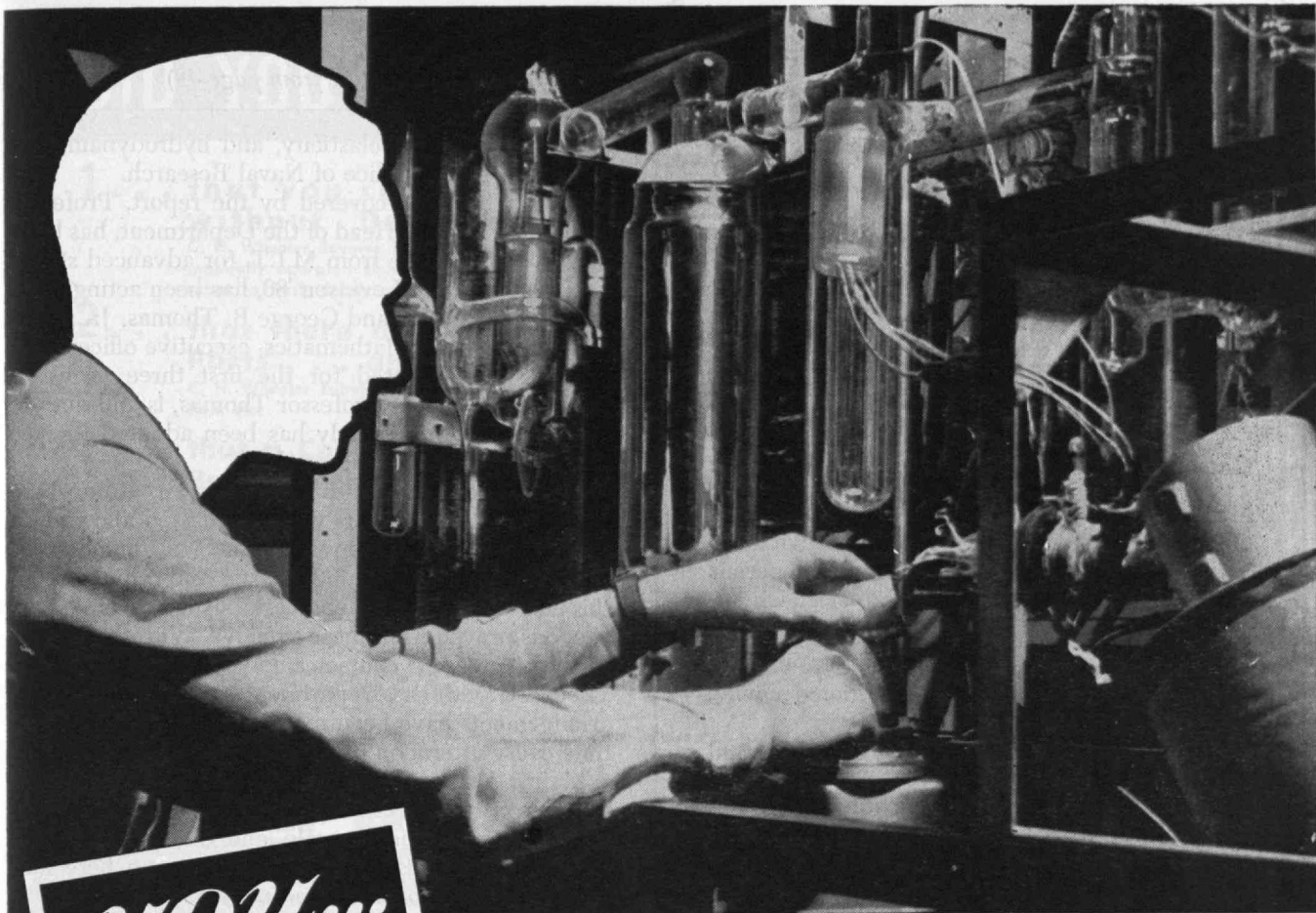
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## THE INSTITUTE GAZETTE

(Continued from page 48)

ferential equations, elasticity, and hydrodynamics is sponsored by the Office of Naval Research.

During the year covered by the report, Professor William T. Martin, Head of the Department, has been on leave of absence from M.I.T. for advanced study. Professor Norman Levinson '33, has been acting head of the Department, and George B. Thomas, Jr., Associate Professor of Mathematics, executive officer. The text recently adopted for the first three terms of calculus, written by Professor Thomas, is still not yet in final form, but already has been adopted for use at another engineering school.

The Department tries to foster an atmosphere where staff and students will feel relaxed and free to co-operate in study and research and to communicate with one another their enthusiasms and criticisms. To this end the Common Room, established several years ago, has proved itself most effective. With the idea of further increasing contact among all the individuals associated with the Department as staff or students, arrangements have been made to serve tea at a fixed time every afternoon in a pleasant room.

Maintaining personal contact with mathematicians in other institutions here and abroad is also very important in promoting morale, and the staff has been very active in this respect. Visitors come here and

(Concluded on page 52)

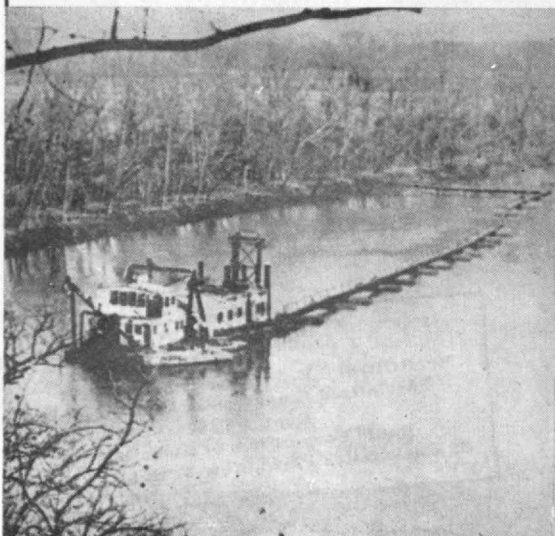
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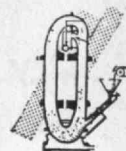
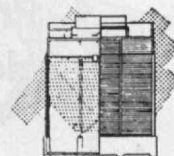
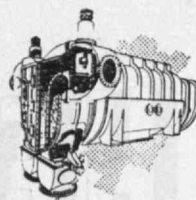
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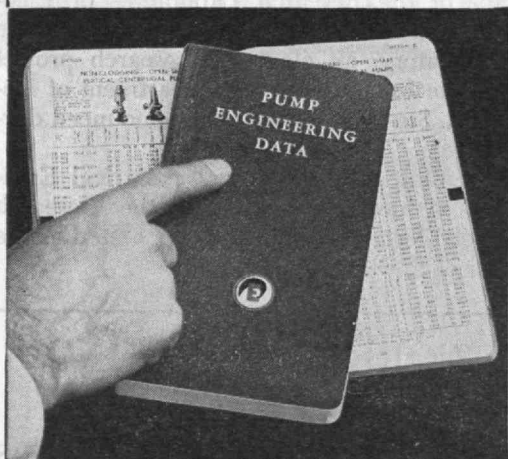


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## THE INSTITUTE GAZETTE

(Concluded from page 50)

our staff visits elsewhere, sometimes just for a day or two and occasionally for as long as a year. One aspect of this activity—attendance at meetings of professional societies—is at present supported on the rather restricted basis of not more than one meeting during a year for any individual and then only if he is presenting a paper.

### Research on City Planning

APPOINTMENT of Louis B. Wetmore, '36, of Providence, R. I., as Visiting Professor of City Planning at the Institute was announced during the summer by Pietro Belluschi, Dean of the School of Architecture and Planning.

Mr. Wetmore, who will be on leave from his post as chief of the Planning Division of the Rhode Island Development Council, will serve in the Institute's Department of City and Regional Planning for the academic year 1952-1953. At M.I.T. he will be principally engaged in directing the establishment of an interdepartmental program of research on metropolitan regions, and he will also teach a course in advanced city and regional planning.

Before World War II, Mr. Wetmore was director of the Tri-Cities Planning Project in Johnson City, Tenn., after having served on the staff of the Division of State Planning in New York and the Planning and Housing Division of Columbia University. After war service as an air intelligence specialist with the U. S. Army Air Force, he became senior planner with the Providence City Planning Commission.

### Promotions in Research Administration

ALBERT G. HILL, Professor of Physics and former Director of the Research Laboratory of Electronics at M.I.T., has been appointed director of the Lincoln Laboratory, an electronic research project operated by the Institute for the Department of Defense, Julius A. Stratton, '23, Provost, announced during the summer.

Jerome B. Wiesner, Professor of Electrical Engineering and Associate Director of the Research Laboratory of Electronics, has been appointed as the new director of this laboratory.

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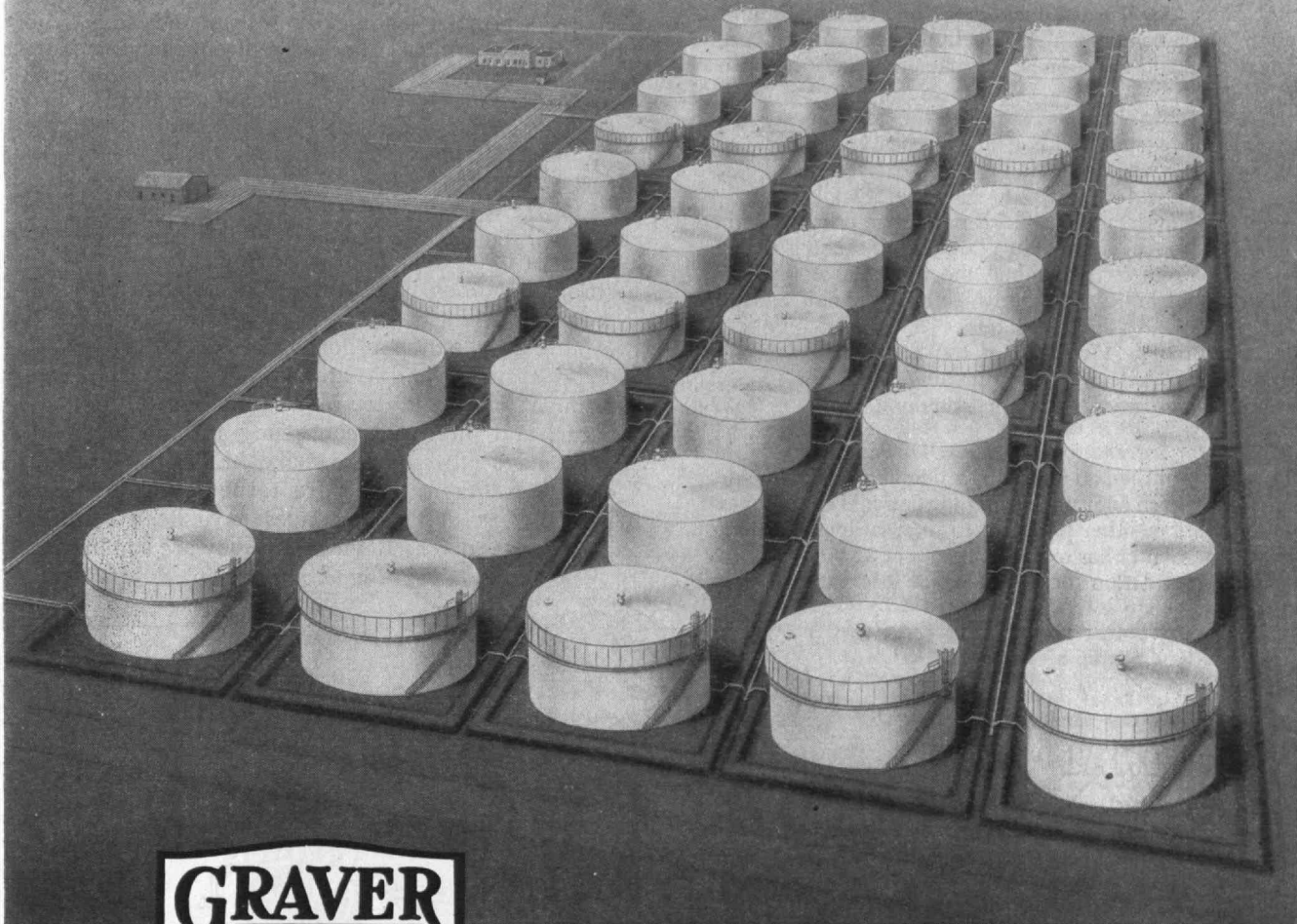
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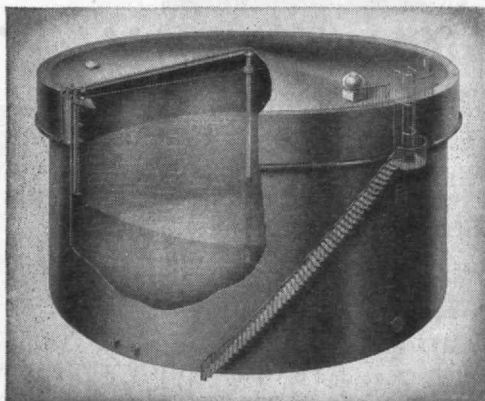
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## PRESIDENT'S REPORT

(Continued from page 35)

Building, expects a graduate enrollment of 48, including 18 members of the Sloan Fellowship Program. With the School still in the organizational stage, it is gratifying to have this large group of able graduate students. Over 200 sophomores, juniors, and seniors enrolled in Course XV, make up the undergraduate school. The School will have 20 faculty members and an additional staff of 18, a total staff which is larger by over one-third than last year's staff of the Department of Business and Engineering Administration which has been absorbed by the School. In April, Professor Ronald H. Robnett was named associate dean of the School.

In developing the new School and in selecting its Faculty, we have sought to avoid duplication of existing schools of business. Repeating the old patterns would have been the fast and easy way to start the School; we have chosen the slower, more difficult path of re-examining the premises of management education and of seeking a fresh approach. From its beginning, the program of this new School should represent creative thinking about management. Toward this end, "task forces" have been appointed by E. P. Brooks, '17, Dean of the School of Industrial Management, to devise new approaches and new content for important segments of the curriculum. . . .

**Center for International Studies.** During the year, the Institute established an interdepartmental organization devoted to research on problems of international communication and various other problems in international relations. Already the Center has received a grant of \$1,000,000 from the Ford Foundation for its studies of international com-

munications and of economic development and political stability.

The creation of the Center, of which Professor Max F. Millikan is director, is indicative of the increased attention at M.I.T. to the economic and social implications of science and technology at home and abroad. . . .

**The Summer Session.** The pattern of our Summer Session is changing in response to a conviction that it should concentrate on special programs, especially adult education, and minimize routine subjects of instruction which repeat work offered during the regular academic year. It is my hope that we can convert our Summer Session almost entirely to special conferences, courses, and seminars for professional personnel in industry, government, and educational institutions. Such a program would have more appeal for the Faculty and would enable Faculty members, in my judgment, to make a greater contribution to our professional objectives. Additionally, it would reduce their summer load. . . .

For perhaps the last decade and a half, significant changes in student life have taken place at the Institute, but they have been proceeding at an accelerated rate since the end of World War II. The expansion in student housing, in facilities for "on campus living," and in athletic provisions, the establishment of Faculty residents in domiciles for students, and increased counseling for incoming students have all tended to make M.I.T. of the 1950's quite a different place from the Institute of the 1930's. Most of these changes have been recorded in the pages of *The Review*, but they are summarized

(Continued on page 56)



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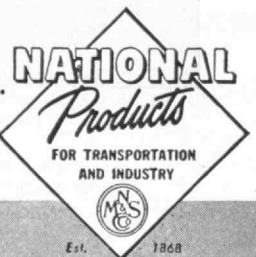
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## TEST #2 AT AN ARMED FORCES TEST LAB

Since a terminal has but a few milliohms resistance, this test required a special transformer to match this low impedance to the input of the amplifier, sensitive to levels of 0.2 micro volt. 60 AMP solderless terminals crimped to short lengths of wire in series, a similar number of carefully soldered joints, and a single piece of solid wire of equivalent R, were compared.

No noise difference was detectable between any of the three.

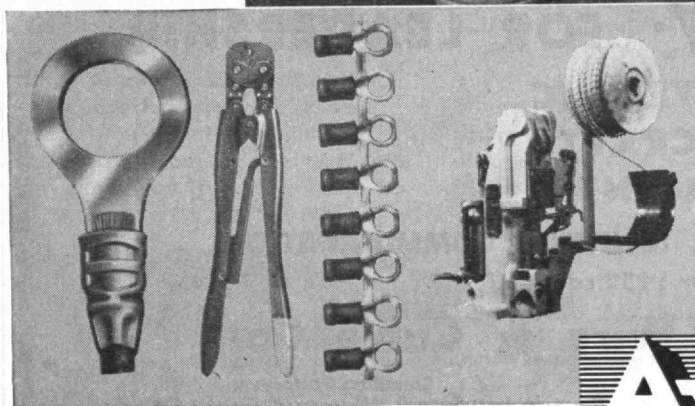
## TEST #3 AT A PROMINENT UNIVERSITY LAB

7,000 AMP solderless connectors were crimped to short lengths of wire in series making a chain of terminals 340 feet long (see illustration). After aging for two years in an unfavorable atmosphere these 14,000 connections in series were tested at radio frequencies up to 20 megacycles.

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## PRESIDENT'S REPORT

(Continued from page 54)

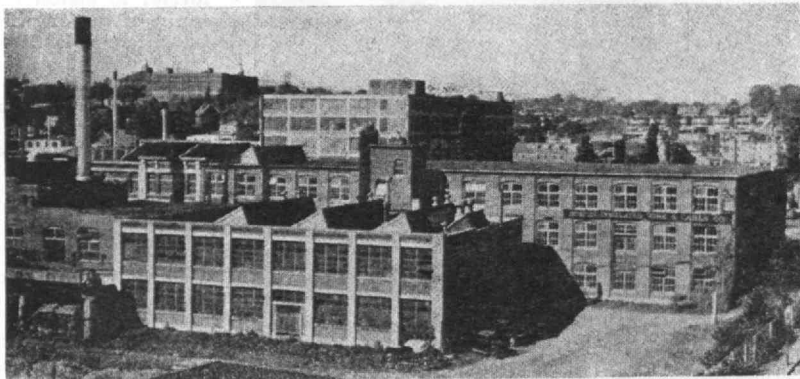
in that portion of the President's Report which deals with Student Life. On this important subject President Killian reports:

The Faculty, the Dean of Students and his associates, and the students themselves have contributed towards our progress this past year in increasing the educational effectiveness of the non-curricular aspects of student life at the Institute. Every effort is being made by the Administration and by the Faculty to create at the Institute an atmosphere in which each member of the student body feels that he as an individual is important and to make sure that each student knows where he can obtain help on educational or personal matters if he feels that he needs it. . . .

**Counseling Freshmen.** Special attention is being given to helping freshmen as they adjust to life at the Institute. Faculty action has led to the establishment this year of a Freshman Advisory Council, each Faculty member of which will act as adviser, and eventually as registration officer, for approximately 20 freshmen. This group has been authorized to develop a program of guidance on course selection and to facilitate the transition to life at the institute. . . .

This year all freshmen not living at home or in fraternities are required to live on campus. They are divided among all three living units so that they live in association with upperclassmen. This year, too, a subcommittee of student government is inaugurating a new student program, whereby volunteer seniors will serve as counselors to freshmen, each senior counselor being assigned 10 freshmen. . . .

(Continued on page 58)



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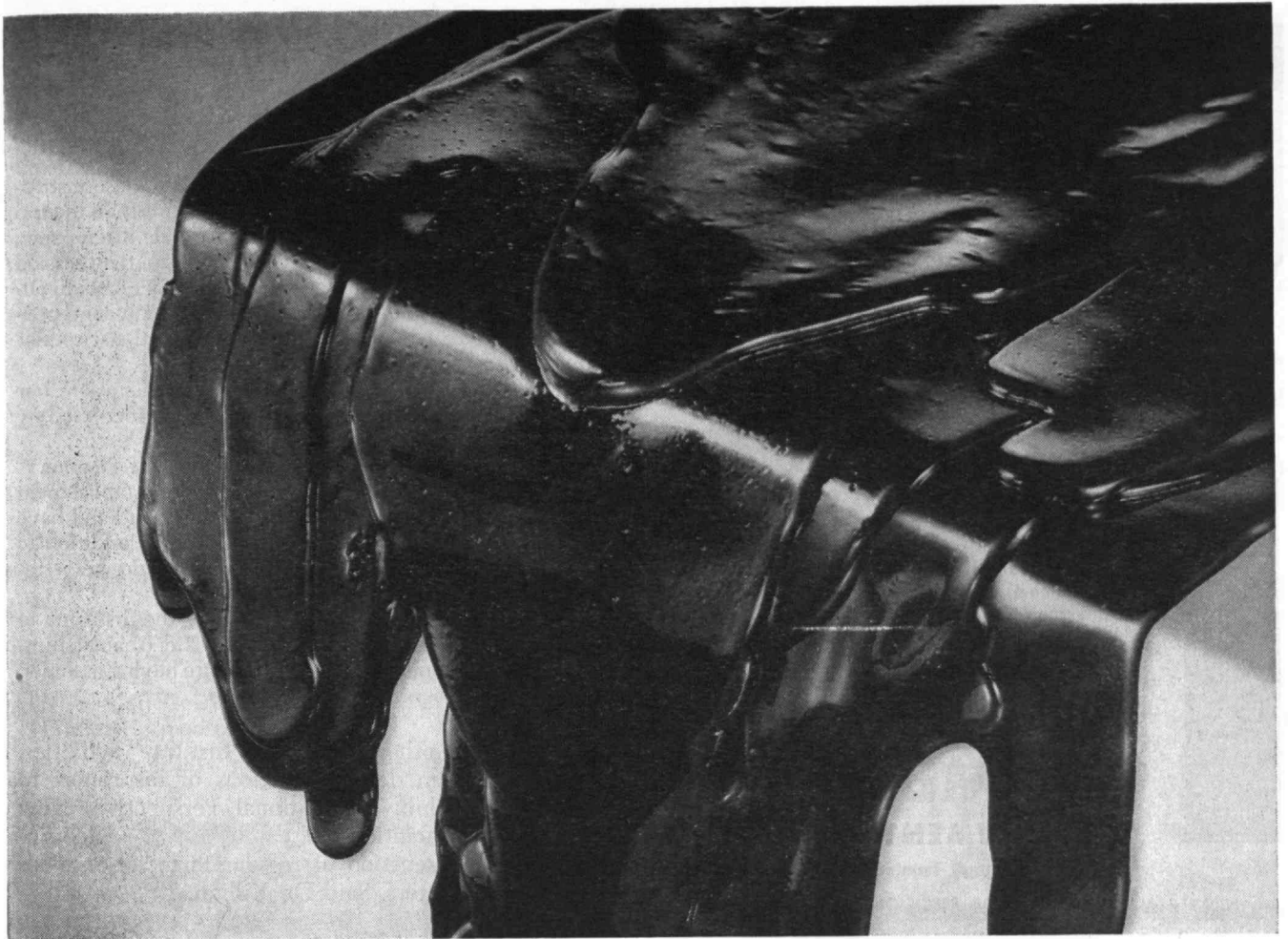
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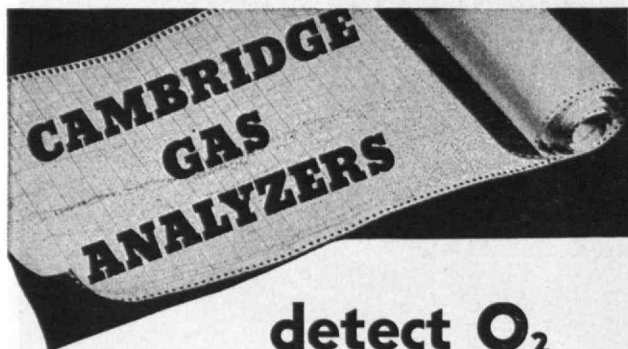
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## PRESIDENT'S REPORT

(Continued from page 56)

The inadequacy of undergraduate scholarships reflects a national inadequacy in the scholarship funds of schools of engineering and institutes of technology. These institutions are strikingly poorer in scholarship funds than the top liberal-arts universities. In my judgment this discrepancy works to the disadvantage of the engineering profession and it has played a part in the declining enrollments in engineering. We wish to be sure that exceptional young people interested in these fields are not denied a superior education for financial reasons.

In the judgment of the Institute's Administration, our undergraduate scholarship awards should be increased by at least \$200,000 per year within the next five years. . . .

E. Francis Bowditch, Dean of Students, and Thomas P. Pitre, Dean of Freshmen, have proposed the establishment of 25 national scholarships of substantial stipend and have presented convincing arguments that such an addition to our undergraduate scholarship program would help significantly in our admissions program. . . .

During the past year we undertook for the first time to co-ordinate the three forms of student aid (scholarships, loans, and work opportunities), Dean Pitre having assumed administrative cognizance over all three.

Turning to other important Institute activities, President Killian devoted sections of his report to the Faculty Club, International Perspective, New Educational Facilities, Research for the Government, and a discussion of regular financial and administrative matters. Said Dr. Killian:

*The Faculty Club.* Occupying the top floor and penthouse of the Alfred P. Sloan Building, the Faculty Club opened its doors in May, ushering in a welcome new era in the community life of the Institute and splendidly fulfilling one of the desiderata long urged by the Faculty. . . .

The facilities include a main dining room with accommodations for 200, four private dining rooms, several rooms for overnight guests, a lounge, game room, and other pleasant appurtenances appropriate to a social club. . . .

*International Perspective.* Earlier in this report I spoke of the shortage of well-educated scientists and engineers as being world-wide. If the high technology of our national economy poses one kind of demand, the need for men in these fields in the undeveloped regions or less highly industrialized nations is in some respects even more urgent. M.I.T., as one of the world's great centers of scientific and

(Continued on page 60)

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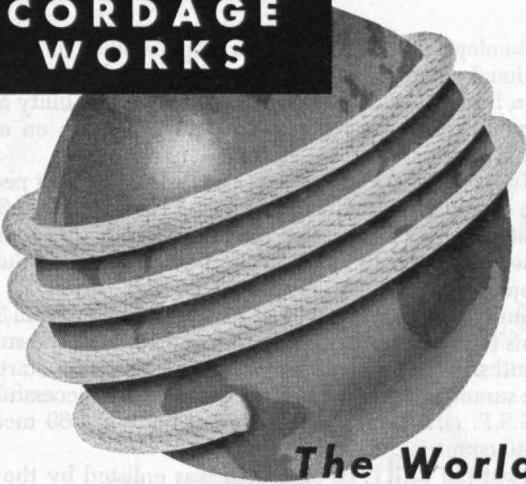
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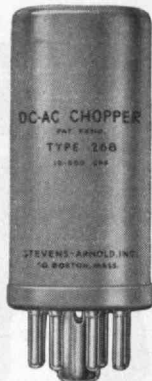
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## PRESIDENT'S REPORT

(Continued from page 58)

technological education, has a responsibility to the international community to furnish educational opportunity to men from other countries to the limit of its ability and to respond to requests for advice and assistance on educational matters.

In recent years, M.I.T. has enrolled the highest percentage of foreign students of any college in the United States. Last year over 10 per cent of our student body came from other countries. In addition the Foreign Student Summer Project, now largely supported by the Alfred P. Sloan Foundation, Inc., brought 81 men and women from 35 nations to the Institute for research and study in the summer months. This student-run project, which was started in the summer of 1948, has proved eminently successful. The F.S.S.P. now has an active alumni body of 369 members in 40 countries. . . .

Last fall M.I.T. co-operation was enlisted by the State Department in a program of technical assistance to the College of Engineering of the University of Rangoon in Burma. As a preliminary step in working out a program of co-operation between the two schools, Rogers B. Finch, '41, Assistant Professor of Textile Technology, who has been named supervisor of this program, visited the University of Rangoon in March. Following his report, an agreement was entered into whereby the Institute will undertake to recruit up to six staff members for the University. This staff will not only teach, but will also aid in the reorganization of the engineering program. The project is being financed by a grant from the U. S. Technical Cooperation Administration. Professor Murray P. Horwood, '16, of the Department of Civil and Sanitary Engineering, has been granted a leave of absence to head the project staff at Rangoon this year. . . .

**New Educational Facilities.** Since my last report, two new buildings have been occupied, and another is in the process of being occupied as the school year opens. This has made possible a thoroughgoing reallocation of space throughout the Institute, and there is no Department which has not gained, to some extent at least, by these space changes. For instance, as the Biology Department moves into the John Thompson Dorrance Laboratory, space has been released in Building 10 which makes it possible to consolidate the facilities of the Electrical Engineering Department and to effect a reorganization of laboratories as well as offices which is designed to strengthen the educational program in this field. Similarly, when the Machine Tool Laboratory moved into the new Metals Processing Laboratory, the Department of Graphics moved into the space thus vacated, which in turn made it possible to bring the Business Administration offices together in Building 24. Some idea of the scope of these changes

(Continued on page 62)



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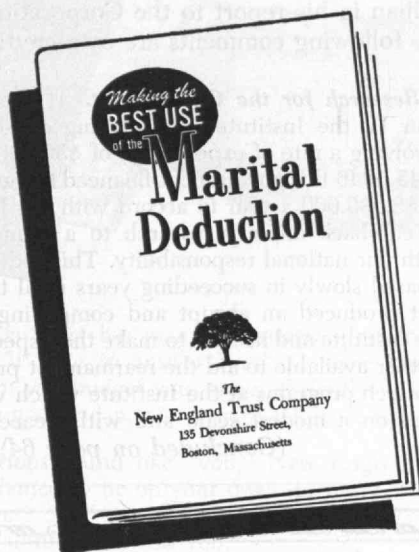
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## PRESIDENT'S REPORT

(Continued from page 60)

may be gained from the fact that for last year and this, the Institute has budgeted \$1,250,000 for reconditioning, modernization, and moving costs.

A complete reassessment and reorganization of our library system has accompanied the rearrangement of the academic departments. With the spreading out of the college over a larger area, and immediate problems before us of whether to include new branch libraries in the Dorrance and Sloan buildings, a careful reassessment of our whole library system seemed advisable. In order that we might benefit from the perspective of a person outside the Institute community, The Faculty Committee on the Library enlisted the help of Keyes D. Metcalf, Librarian of Harvard University. Dr. Metcalf made a thorough survey of our situation during the late summer and fall of 1951, and his thoughtful, informed appraisal of our library system provided a sound basis for action.

The reconstituted library organization which is now being put into effect reverses the trend towards too great a proliferation of branch libraries by providing for a limited number of large, well-staffed divisional libraries to replace the existing small and inadequate branches. A General Library will replace the former Central Library, and five large Divisional Libraries will correspond to the five Schools of instruction. . . .

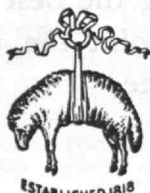
Final working drawings for the auditorium are now being completed, and construction is expected to start this winter. The auditorium will seat 1,200 and has a stage which will accommodate the largest Institute choral groups, as well as the symphony orchestra. The basement is so planned that it can be developed as a small theater

and auditorium, to meet the special requirements of our drama groups. The main auditorium will be supplemented by a small devotional chapel which will be available to all religious groups at Technology. . . .

Since before World War II, the Institute has been called upon to engage in an active program of research for national defense. In spite of a drop in these activities shortly after the end of World War II, research at M.I.T. continues at a high level. Of course, the conduct of a substantial amount of research at an educational institution has certain inherent advantages if the two programs are properly interrelated. And although research for national defense fulfills a lofty objective, it also creates many difficult problems. These are discussed by President Killian in his report to the Corporation, from which the following comments are extracted:

**Research for the Government.** At the end of World War II, the Institute was carrying on defense research involving a rate of expenditure of \$50,000,000 a year. By 1945-1946 this government-financed research was reduced to \$8,000,000 a year in accord with the Institute's desire to cut back military research to a minimum consistent with our national responsibility. This reduced volume increased slowly in succeeding years until the Korean conflict produced an abrupt and compelling demand upon the Institute and its staff to make their special competence further available to aid the rearmament program. Various research programs at the Institute which were being pursued on a modest scale and with peacetime objectives

(Concluded on page 64)



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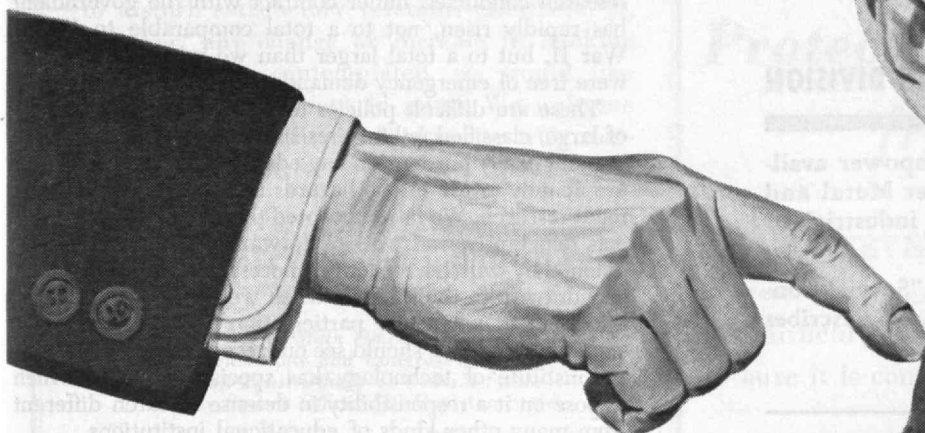
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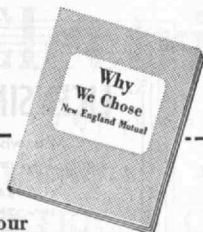
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(Concluded from page 62)

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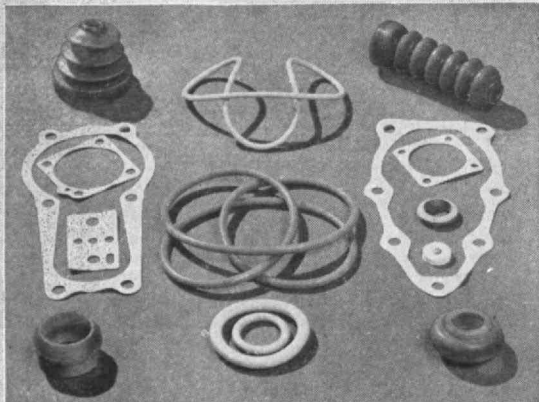


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were demonstrably of immediate importance to the military services, and we were asked to enlarge them. Certain projects with military objectives which had continued after World War II became quickly of more urgent importance, some even to the fighting in Korea, and obviously we were under obligation to accelerate them.

As a result of these factors and of the Institute's key position as a national center of research, the volume of our research conducted under contract with the government has rapidly risen, not to a total comparable to World War II, but to a total larger than we would wish if we were free of emergency demands. . . .

These are difficult policies to administer. The conduct of large, classified military research projects imposes vexing and heavy burdens on any educational institution. We are acutely aware of the hazards inherent in our government research. We have accepted the large classified projects reluctantly, and we look forward eagerly to the time when they will be no longer necessary. We propose to withdraw from the projects when we have met our commitments or when our participation becomes less than compelling, but we should see our responsibilities through. An institute of technology has special resources which impose on it a responsibility in defense research different from many other kinds of educational institutions. . . .

The Institute's finances reflect the general inflationary trend which marks the entire American economy. Since 1939-1940, the Institute's academic operating expenses per student have risen more than 80 per cent, and they are still increasing as the cost of living rises. This steady upward trend in expenses has required the Institute to increase its tuition from \$800 to \$900 per academic year, effective July 1, 1953, as reported in the July, 1952, issue of The Review. Additional items of interest on M.I.T. finances will appear in The Review next month as a report from the Treasurer.

Dr. Killian reported that the Committee on Financial Development had validated a long-range objective for new capital resources of some \$20,000,000 for additional permanent funds, and \$12,000,000 for special facilities over the next few years.

President Killian's report concludes with a recital of Faculty and administrative changes which have taken place during the year. Most of these changes have already been noted in past issues, or are reported in this issue of The Review.

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All replies to be held confidential. Please write to Box G  
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SA-3



## BANKING CONNECTIONS

WHILE we are, of course, constantly looking for new business, it is never our intention to disturb satisfactory relations elsewhere. If, however, any change or increase in banking connections is contemplated, we would like very much to be kept in mind. We welcome opportunities to discuss banking or trust matters at any time.

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## **BIOLOGICAL WARFARE**

### **— MENACE OR MYTH**

*(Concluded from page 33)*

relief of the general population, but the people themselves have certain duties and responsibilities. Aside from learning the rudiments of personal and public health concerning germ warfare, individuals would be wise to have themselves immunized against those diseases for which safe and effective methods of vaccination are available. In the United States Army, for example, every soldier is routinely immunized against smallpox, typhoid and paratyphoid fevers, and tetanus, and may be immunized against typhus fever, yellow fever, plague, cholera, and diphtheria when serving or traveling in areas where these maladies are prevalent. As a result of this program, these diseases are virtually absent in our military forces, even if widespread all about them as they are, for example, in Korea.

Biological warfare is, then, definitely not a myth. It is a distinct possibility in the hands of a resourceful and malefic enemy who consistently disregards all the rules of civilized warfare, if any warfare can be called that. Lacking any previous experience with it, the seriousness of the germ warfare menace cannot be stated with any degree of certainty, but it probably is not as threatening as sometimes has been alleged. It is another of those difficult problems which we can overcome if we have to, and there is no reason why we should be needlessly anxious and apprehensive about it. On the other hand, it would be foolish to be apathetic or complacent about it.

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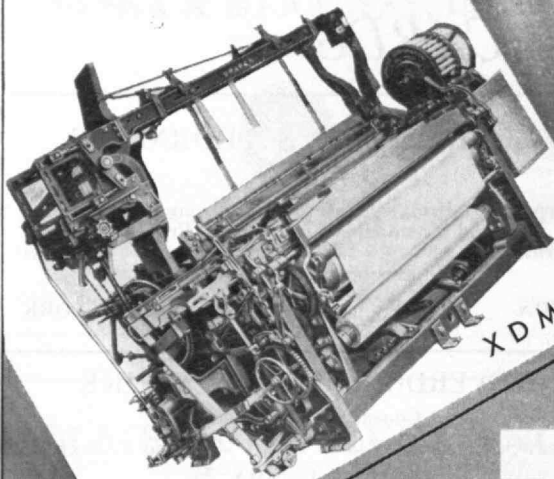
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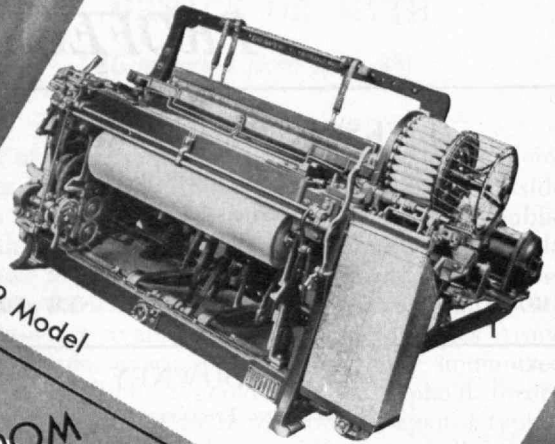
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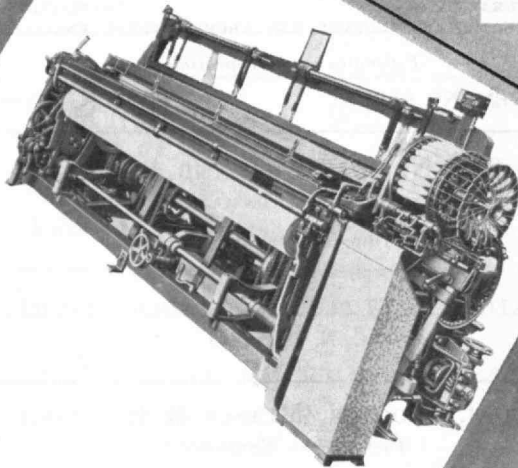


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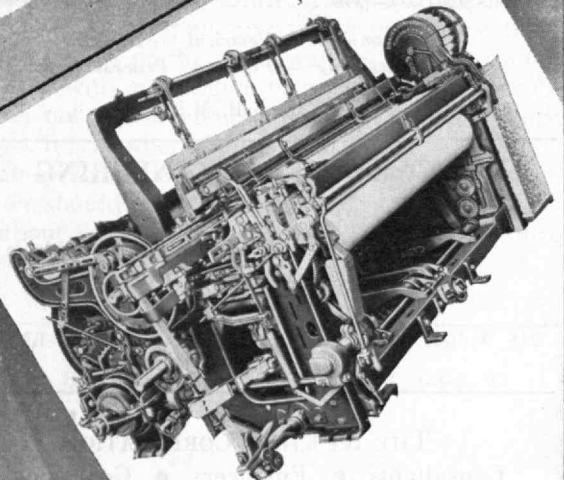


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# The M. I. T. Alumni Fund

## FELLOW CLASSMATE:

*For 12 years a small group of Alumni have been working tirelessly in behalf of M.I.T. Their efforts have not gone unnoticed, as attested by the success of the Alumni Fund, but they have not, in general, received the thanks that they so richly deserve. Without the Class Agents our annual Fund would be something less than complete.*

*Every year each Class Agent writes a number of letters. You get only those which go to your Class. How about the others? Are the records of other classes a direct reflection of the potency of their Class Agents' appeals? Here are a few paragraphs from the first letters this fall. Whether your class is 1952 or 1892, they all apply to you:*

Did you notice the interesting distinction made in the Fund's Annual Report? The Fund Board has established as a basic principle that our gifts shall be used for emergency capital expenditures — not to meet operating deficits as is the case with many college funds. Thus the Fund is being accumulated to meet some future need of real significance. (In the past, \$750,000 of Fund money made possible the completion of Baker House and Hayden Library.)

\* \* \*

"Thoughtful Giving." This phrase struck me forcibly. Not just token giving or giving without thinking it through. Think what Tech has done for us, and in many cases for our sons. "When Good Fellows Get Together," with or without a stein on the ta-bul, they can accomplish miracles. If we give thoughtfully we will give adequately.

\* \* \*

Passed 40 lately?

And if so, isn't it a good time to take stock of progress? For one thing, are you any better off now at 40 than you would have been if you had not attended the Institute?

\* \* \*

When we were students we paid for only a part of our education. I like to think that I'm doing my part to enable future students to have as good an education as I received.

\* \* \*

I hope you will look on your contribution to M.I.T.'s support as an opportunity — not a burden.

\* \* \*

Uncle Sam makes it easier and easier by jacking the tax rate so high you just can't afford not to give!

\* \* \*

To give or not to give;  
That is the question.  
Whether 'tis nobler in a man  
To take the prestige of M.I.T. free  
And let some others foot the bill,  
Or to sign a check and help to pay the 'Stute's expenses.

\* \* \*

Presidential candidates are talking lower taxes, but don't wait for them. Take a chance and send in your 1953 contribution NOW while you still have it.

\* \*

It takes just 70 seconds to write a check — I just timed myself. A check from you would be appreciated.

# Alumni AND Officers IN THE News

## Honorary Degrees: June, 1952

GERARD SWOPE'95 received an honorary doctor of laws degree from Dartmouth College. Mr. Swope was cited as an exemplary citizen and as an industrial leader who "has built one of the most broadly useful and respected careers of our times."

CHARLES A. KRAUS'08 received a doctor of science degree from Indiana University. Professor Kraus is known especially for his development of the ethyl chloride process for making tetraethyl lead.

CARL S. ELL'11, President of Northeastern University, was honored with the doctor of humane letters degree from Boston University.

ROGER L. PUTNAM'17 was awarded the doctor of laws degree by St. Anselm's College. Mr. Putnam also delivered the commencement address to St. Anselm's graduating class.

EARL P. STEVENSON'19 received the honorary degree of doctor of laws from Wesleyan University. President Victor S. Butterfield of Wesleyan cited Mr. Stevenson's leadership in both industrial research and community endeavors.

CRAWFORD H. GREENEWALT'22 was awarded an honorary doctor of engineering degree from Rensselaer Polytechnic Institute — "in recognition of his services as an engineer and industrial executive."

KARL T. COMPTON, chairman of the M.I.T. Corporation, received an honorary doctor of science degree from Cambridge University in England.

## Promotions and Elections

ROY W. LINDSAY'07 has been elected president of Pratt and Lambert, Inc., of Buffalo, N. Y.

EDWARD H. MANGAN'12 has been appointed an executive vice-president of Electro Metallurgical Company, a division of Union Carbide and Carbon Corporation.

ALLISON BUTTS'13 was appointed head of the Department of Metallurgy at Lehigh University, effective last August.

ALFRED J. FERETTI'17, who is chairman of the Mechanical Engineering Department at Northeastern University, has been elected president of the New England Society of Engineers.

ISIDOR SLOTNIK'19 has been elected to head the 1952 campaign of the Combined Jewish Appeal of Greater Boston. The campaign, which is the major fund-raising agency in Boston for a network of over 200 philanthropic organizations serving people at home, overseas, and in Israel, was inaugurated this September.

The Marathon Corporation has chosen JOHN STEVENS'19 as its new president.

GAVIN R. TAYLOR'20 recently has been appointed executive vice-president of the

McColl-Frontenac Oil Company of Canada.

EVERETT M. STRONG'22, of the School of Electrical Engineering at Cornell, has been elected 1952-1953 president of the Illuminating Engineering Society.

ALBERT NOBLE'23 has been elected executive vice-president of the Nordberg Manufacturing Company. Mr. Noble was also made a member of the Nordberg executive committee and the board of directors.

JAMES F. CRIST'24, Vice-president of the Southern Company of Atlanta, Ga., has been elected president of the Southern Association of Science and Industry, an organization devoted to the study and development of the resources of the 14 southern states.

HAROLD HOLDEN'24 has been elected president and director of Eastern Corporation of Bangor, Maine.

ALLEN L. COBB'26 has been elected president of the National Fire Protection Association.

ALLAN W. LUNDSTRUM'26 was named president of the Ohio Fuel Gas Company.

DAVID N. HAUSEMAN'28 has been elected a vice-president of Davison Chemical Corporation of Baltimore, Md.

GEORGE S. HUBBARD'28 has been elected a director and vice-president in charge of manufacturing of the Aluminum Cooking Utensil Company and Kensington, Inc.

## Honors and Awards

ARTHUR L. WILLISTON'89 was presented the James H. McGraw Award in Technical Institute Education at the June 26, 1952, annual dinner meeting of the American Society for Engineering Education, held at Dartmouth College. The award is made annually for outstanding contributions to the field of technical institute education. At the same occasion, the George Westinghouse Award for 1952 was presented to GORDON S. BROWN'31, of the Department of Electrical Engineering at M.I.T., in recognition of his contributions to the improvement of teaching methods for engineering students.

ROBERT B. SOSMAN'04, Visiting Professor of Ceramics at Rutgers University, has been made an honorary member of the American Ceramic Society.

DR. JAMES H. MEANS'06, of the M.I.T. Medical Department, was presented the Squibb Award for 1952 by the Endocrine Society on June 6. Dr. Means received the award for "meritorious work in the field of endocrinology."

The plastics industry honored PALMER W. GRIFFITH'21 with the John Wesley Hyatt Award last June. The award, given annually for achievement of wide importance to the plastics industry, was made to Mr. Griffith for his work on development of melamine resins.

CYRIL S. SMITH'26 was awarded the Francis J. Clamer Medal on October 15 by the Franklin Institute — for his metallurgical contribution to the development of atomic energy during and since World War II. At the same ceremony, ARTHUR M. STONER'31 received the Certificate of Merit for his development of a chuck and collet combination for lathes to hold cylindrical work being machined.

DAVID L. MACADAM'36 received the 1952 Journal Award of the Society of Motion Picture and Television Engineers at the society's annual convention in Washington on October 8. Dr. MacAdam was so honored for his technical article on "Quality of Color Reproduction," which appeared in the S.M.P.T.E. *Journal* in May, 1951.

EDWARD M. REDDING'42 was presented the Alumni Award for distinguished service by the University of Denver during commencement exercises in June. Earlier, in May, Dr. Redding addressed the Washington section of the American Institute of Electrical Engineers on the subject, "Solar Energy Conversion."

PROFESSOR JOHN CHIPMAN, staff, received the Luigi Losana Gold Medal for achievements in the field of metallurgy at the opening of the Sixth Italian Congress on Metallurgy in Genoa, Italy, in September. The medal was awarded by the Italian Metallurgical Association.

## From the Platform

LESLIE R. GROVES, JR.'17, Vice-president in charge of development for Remington Rand, Inc., was the keynote speaker at the National Automatic Merchandising Association's annual convention, held September 14-17 in Chicago.

PROFESSOR ALBERT G. H. DIETZ'32 and ALBERT J. O'NEILL'32, both of the Department of Building Engineering and Construction at M.I.T., presented a paper entitled "Investigation of Physical and Mechanical Properties of Wood Waste Board," at the sixth annual national meeting of the Forest Products Research Society at Milwaukee, Wis., on June 24.

ROBERT B. THOMPSON'32 presented a paper entitled "A New Application of Fluidization" before the national meeting of the American Institute of Chemical Engineers, held in Chicago during September.

At the annual meeting of the American Society for Engineering Education last June, WERNER H. GUMPERTZ'48, Assistant Professor of Building Construction at M.I.T., spoke on "Recent Developments in Construction Methods." At the same meeting, WILLIAM L. MAIN'51, teaching assistant in the Department of Building Engineering and Construction, participated in a panel discussion entitled "Cooperation between Associated General Contractors of America and the American Society for Engineering Education," a dis-



cussion which was moderated by Professor Gumpertz.

PHILIP M. LALLY'48 presented a paper at the Tenth Annual Conference on Electron Tube Research of the American Institute of Electrical Engineers and the Institute of Radio Engineers, held in Canada last June. The title of his report was "Preliminary Report on a Space-Harmonic Amplifier."

ANTOINE M. GAUDIN, staff, delivered the third Sir Julius Wernher Memorial Lecture before the British Institution of Mining and Metallurgy on September 22. Dr. Gaudin is Richards Professor of Mineral Engineering at M.I.T.

## Convocation of Engineers

The Herbert Hoover Medal, presented for distinguished public service and established in honor of the former president, was awarded this year to CLARENCE D. HOWE'07, Canadian Minister of Trade and Commerce and Defense Production. The occasion for the presentation was the convocation of engineers in Chicago, September 3 to 13, marking the 100th anniversary of the founding of the American Society of Civil Engineers. Another M.I.T. Alumnus to receive recognition on this occasion was THOMAS W. LAMBE, 2-44, Associate Professor of Soil Mechanics at M.I.T., who received the Collingwood Prize for Juniors for his paper on "Capillary Phenomena in Cohesionless Soils."

## Written By and About

In the August, 1952, issue of *Fortune* magazine is a descriptive "portrait," photographic and written, of CLARENCE D. HOWE'07, Canada's Minister of Defense Production and Minister of Trade and Commerce. The title of the article is "C. D. Howe of Canada," and the subtitle: "He's the man who made it a businessman's country."

THOMAS C. DESMOND'09, New York State Senator, has written two articles recently. One, published in the August, 1952, issue of *Today's Health*, is entitled "The Plight of the Elderly." The other, entitled "Those Sunshine Letters," was published in the August, 1952, issue of *Coronet*.

PROFESSOR ERWIN H. SCHELL'12, Head of the Department of Business and Engineering Administration at the Institute, has written a book entitled *The Million Dollar Lecture* (New York: McGraw-Hill Book Company, Inc., 1952). Professor Schell, in his book, points out opportunities for self-improvement, and hazards faced by young men who are about to begin their careers in the business world.

In the September 8, 1952, issue of *Time* magazine, under the Business and Finance section, there is an interesting item concerning the rise to success, despite great physical handicaps, of PAUL RYAN'22. Mr. Ryan, though terribly disabled and still in great pain from an airline crash 12 years ago, is preparing to supervise the building of the longest and costliest pipe line in the United States, the only pipe line to carry refined petroleum products from the Texas Gulf refineries to the East Coast.

VICE-ADMIRAL LESLIE C. STEVENS'22, retired from the United States Navy, has written a two-part article for the *Atlantic Monthly* concerning Russia. In the May, 1952, issue, he discusses "The Russian People," and in June, "The Russian Doctrine."

HENRY B. KANE'24 has illustrated two books published recently: *Far and Few* (Boston: Little Brown and Company, 1952), which is a book of children's verse written by David McCord of Harvard; and *Sportman's Country* (New York: Houghton Mifflin Company, 1952) by Donald K. Peattie.

DUDLEY L. PARSONS'26 wrote the lead article in the June, 1952, issue of *Public Relations Journal*, entitled "Your Company's Place in History."

In the September, 1952, issue of *Scientific American*, the following M.I.T. Alumni contributed articles: GORDON S. BROWN'31 and DONALD P. CAMPBELL'43 wrote "Control Systems," a discussion of the applications of feed-back mechanisms; GILBERT W. KING'33 wrote "Information," an analysis of the nature of information and its relation to feedback; and WILLIAM M. PEASE'42 wrote "An Automatic Machine Tool"—a prediction of what may come in discontinuous-process industries.

MARION HOGAN, 2-46, the country's only woman industrial meteorologist, was featured in an article in *Boston Business* (June, 1952, issue) entitled, "Her Forecasts Save Lives and Money." Miss Hogan is the founder and president of Weather Services, Inc., of Boston.

## Obituary

WILLIAM H. BEECHING'77, September 5.  
JAMES H. HUTCHINGS'83, July 4.  
SAMUEL S. DEARBORN'84, July 22.  
HARRY E. CLIFFORD'86, July 7.  
HENRY B. BRAINERD'87, April 15.  
ALFRED B. WILLIAMS'87, May 25.  
GEORGE B. POOL'88, May 17.  
JOHN H. RANKIN'89, June 19.  
JOHN G. CRANE'90, June 19.  
JOHN W. HALL'92, April 15.  
EDITH SHANKLAND KEENE'92, March 30.  
MARY WILLS LOCKWOOD'92, May 29.  
RALPH H. SWEETSER'92, June 29.  
JOHN F. VINING'92, August 11.  
MYRON HUNT'93, May 26.  
WILLIS T. KNOWLTON'93, June 17.  
LEONARD M. BARNARD'95, July 16.  
JAMES T. FITTEN'95, March 17, 1947.  
EDITH JOYCE LOW'95, June 13.  
HUGH M. TUCKER'95, May 5, 1947.  
CHARLES H. HALL'96, August 11.  
HERBERT E. WALKER'96, July 15.  
GEORGE R. ANTHONY'98, April 16.  
FRANK F. COLCORD'98, March 21.  
WILLIAM H. GARDINER'97, June 21.  
ARTHUR A. KNIGHTS'97, during 1948.  
GEORGE W. TREAT'98, August 25.  
FRED H. TWOMBLY'98, May 11.  
GEORGE F. ANDREWS'99, June 19.  
FREDERICK W. SNOW'99, August 23.  
JOSEPH P. DRAPER'00, August 21.  
BENJAMIN R. JOHNSON'00, May 9.

GEORGE W. KNIGHT'00, May 14.  
ROBERT C. SIMPSON'00, August 19.  
FARNUM F. DORSEY'01, June 25.  
LAMMOT DU PONT'01, July 24.  
FIRMIN V. DESLOGE'02, May 18.  
ARTHUR B. LAMB'02, May 15.  
HERBERT S. WALKER'02, June 12.  
RENAUD LAGE'03, January 14.  
NATHANIEL R. POTTER'04, May 4.  
R. E. LEE TAYLOR'04, June 23.  
SIDNEY G. WARD'04, June 6.  
WILBUR T. WILSON'04, August 9.  
CLARENCE E. GAGE'05, June 26.  
WESLEY C. GILMAN'05, November 9, 1951.  
WILLIAM H. HOYLE'06, December 2, 1950.  
LOUIS S. MURPHY'06, December 3, 1945.  
EDWIN B. SNOW, JR., '07, June 25.  
JAMES L. WALSH'07, June 11.  
ALLSTON DANA'08, May 12.  
MAURICE L. MCCARTHY'08, January 26.  
BENJAMIN HAMMOND'09, April 17.  
PAUL M. WISWALL'09, June 15.  
ARTHUR L. HARDING'10, May 2.  
WILLIAM R. NICHOLS'10, July 12, 1950.  
RAYCROFT WALSH'10, August 17.  
CHARLES S. ASHLEY'11, June 2.  
AUGUSTIN FRIGON'11, July 9.  
IVORY S. JAMES'11, October 16, 1951.  
CHARLES S. WILLIAMS'11, May 22.  
DAVID DASSO'12, May 18.  
FRED K. LEAROYD'12, March 17.  
NORMAN CLARK'13, May 12.  
HARRY D. PECK'13, August 25.  
ROBERT T. PORTAL'13, September 1.  
DAVID L. SUTHERLAND'14, July 14.  
JULIUS KUTTNER'15, April 5, 1951.  
MRS. LESLIE LITTLE'15, date unknown.  
GERARD R. WALSH'15, date unknown.  
GEORGE H. WARFIELD'15, August 6.  
HOWARD E. BAILEY'17, May 8.  
CLARENCE COCHRANE'17, July 9.  
JOHN T. CRONIN'17, date unknown.  
KARL E. KENNEY'17, September 23, 1951.  
SHERRY O'BRIEN'17, August 9.  
HERBERT C. WILLIAMSON'17, July 1.  
FRANKLIN A. BIRMINGHAM'19, April 6, 1950.  
PHILIP E. HAEBLER'20, June 7.  
JOHN A. PHILBRICK'20, August 1.  
KENNETH N. GOWARD'21, September 9.  
MAURICE MASON'21, August 15.  
ROBERT J. BUCKLEY'22, date unknown.  
JAMES B. MORTON'22, December 19, 1942.  
HAROLD F. COTTER'23, April 29.  
EDWARD P. SOULE'23, March 26, 1951.  
EARL B. PRIDMORE'24, May 13, 1950.  
CHARLES W. RIVA'24, June 26.  
ROBERT R. CROSBY, JR., '25, August 12.  
ELIZABETH HIRST'25, June 9.  
NEWELL E. WATTS'25, July, 1951.  
WALTER W. ATKINSON'26, April 13.  
JOHN K. PHELAN'27, August 4.  
ROBERT C. BELL, JR., '28, date unknown.  
WILLIAM J. LARKIN, JR., '30, August 1.  
ELMER COHEN'31, during 1950.  
LUCIA KNAPP ROYAL'31, April 28.  
LOUVIAN G. SIMONS'32, June 10.  
THOMAS F. HALL, JR., '35, September 3.  
HENRY F. HERPERS, JR., '36, July 11.  
ANDREW P. REBORI'39, September 15.  
GILBERT H. MITCHELL'41 October 6, 1951.  
DAVID MCCULLOCH, 2-44, June 1.  
LESTER BRESSACK'49, July 27.  
JOHN P. FROST'49, July 2.  
DONALD KINGMAN'49, August 26.  
°Mentioned in class notes.

# News FROM THE Clubs AND Classes

## CLUB NOTES

### *The M.I.T. Club of Buenos Aires*

José Carlos Bertino<sup>23</sup>, as the Institute's Honorary Secretary in Buenos Aires, and on behalf of the M.I.T. Club of which he is president, writes to extend a cordial welcome to any M.I.T. Alumnus visiting Argentina. Some 50-odd M.I.T. men are resident in that country and meetings are held monthly on the second Thursdays at the American Club, Calle Bartolomé Mitre 555.

Further information may be obtained from Professor Bertino, Florida 801 (telephone 31-011) or Talcahuano 77 (telephone 37-5791); or from other officers of the M.I.T. Club as follows: Vice-president, John Worcester<sup>30</sup>, National Lead Company, Av. R. S. Peña 567 (telephone 33-3924); and Secretary-Treasurer, Oscar L. Briozzo<sup>46</sup>, Cade-Balcare 184, cap. (telephone 33-1901), or Laprida 526, San Isidro, F.C.N.G.B.M.

In his letter, Professor Bertino recalls that upon returning to Buenos Aires from a visit to Cambridge in 1940, he discussed the idea of forming an M.I.T. club with J. H. Flynn<sup>05</sup>, Luis A. Igartua<sup>23</sup>, Henry C. Rickard<sup>23</sup>, Roberto Ottonello<sup>22</sup>, and Luciano Preloran<sup>22</sup>. From these discussions and several informal luncheons, a decision was reached to organize a club on September 11, 1941. At an election meeting held October 9, Igartua was chosen as the first president, Flynn as vice-president, and Ottonello as secretary-treasurer. The custom of meeting every second Thursday of the month was adopted, and when the M.I.T. of Uruguay was formed in 1942, annual joint meetings were held with it, the setting alternating between Buenos Aires and Montevideo.

Professor Bertino continues: "At the beginning and during several years, we succeeded in sending a few graduates and students to Technology. The generosity of the C.A.D.E., where René T. Brosens<sup>26</sup> is vice-president, and *Duperial*, where Richard W. Plummer<sup>26</sup>, now in Mexico, D.F., held a key position, made this possible. Today, however, economic conditions, money rates and the high cost of living do not allow us to carry on this idea. But we are happy to know that other institutions such as the Asociación Universitaria Argentino Norte Americano, the Instituto Cultural Argentino, Norte Americano, and the Cornell Club of Buenos Aires are doing so. . . .

"In all our meetings, the Technology spirit prevails as a call toward Alma Mater and the remembrance of those happy hell-working days at the Institute, which gave us a true fraternal understanding of the real basis of a clear friendship be-

tween people of different nations." — OSCAR L. BRIOZZO<sup>46</sup>, *Secretary*, Laprida 526, San Isidro, F.C.N.G.B.M., Buenos Aires, Argentina, South America.

### *M.I.T. Club of Central Florida*

During the past year it has been our pleasure to be hosts to H. E. Lobdell<sup>17</sup> and B. A. Thresher<sup>20</sup>. Mr. Lobdell gave a talk on the status of the Alumni Fund and Professor Thresher talked on the subject of admissions. Everyone was very pleased to hear from both of them.

Our last meeting was in April and David Moyer<sup>43</sup> arranged to have a showing of "The Du Pont Story," a very interesting account of the history of the Du Pont Company. This meeting was held at the Crystal Ball Restaurant and the ladies were invited. Attending this meeting were Richard S. Bicknell<sup>10</sup>, Mr. and Mrs. Lawrence P. Geer<sup>15</sup>, the President of the Club and his lovely wife, Mr. and Mrs. Albert W. Higgins<sup>01</sup>, Mr. and Mrs. H. J. McGillivray<sup>38</sup>, Mr. and Mrs. Malcolm R. McKinley<sup>19</sup> and daughter, Mr. and Mrs. David B. Moyer<sup>43</sup>, Mr. and Mrs. Samuel B. Rogers<sup>13</sup>, Mr. and Mrs. Nicholas J. Rompon<sup>47</sup>, and Philip B. Stovin<sup>25</sup> and guest. David Moyer has since been transferred from Tampa to New York, and we are going to miss him very much.

At least once a year it gives us all a good deal of pleasure to invite ourselves to Bristow's<sup>(14)</sup> ranch for a barbecue. We usually send him a notice from the Secretary's office that a barbecue meeting will be held at J. J. R. Bristow's home two weeks hence and Mr. Bristow is just as surprised as anyone about the prospects. However, he's a very genial host and it usually ends up by being the most successful meeting of the year. — HAROLD J. MCGILLIVRAY<sup>38</sup>, *Secretary*, Pittsburgh Testing Laboratory, 512 North Delaware Avenue, Tampa, Fla.

### *The M.I.T. Club of Chicago*

All previous records of attendance at club activities were broken at the Centennial Eve Dinner of the M.I.T. Club of Chicago on September 9. It is a pleasure to start a year as secretary and report that 374 Alumni, wives, and guests gathered for cocktails and dinner in Cathedral Hall of the University Club for our first meeting of the season. In order that the Chicago Alumni might play host to the visiting M.I.T. Alumni and staff members, the dinner was planned for a date near the center of the Centennial of Engineering Convocation being held in Chicago the first two weeks of September. Perhaps the job of playing host is a popular one, for the number of Alumni from the Chicago area alone exceeded previous attendance records.

It was through the efforts of its dinner

committee that the Chicago Club was able to start its 1952-1953 season with such a bang. However, that is only the beginning, for our next event is a humdinger, according to those who have been able to attend in the past. This event is the annual week-end trip to French Lick, Ind., via the Monon Railroad's "Hospitality Special" arranged by John Barriger<sup>21</sup>. Unfortunately these notes must go to press before the trip, although the date, October 24-26, will have come and gone before these notes are printed. However, we are hopeful that Alumni who will be notified through their clubs in Dayton, Cincinnati, Milwaukee, and Louisville and other nearby towns will be able to join us. The full account must await next month's notes. The Centennial Eve Dinner Committee, responsible for the fine turnout at that affair, was comprised of John Austin<sup>36</sup>, Phil Coleman<sup>23</sup>, Hal Davis<sup>40</sup>, Bob Gunness<sup>34</sup>, Bud Meissner<sup>43</sup>, Dick Meyer<sup>42</sup>, John Praetz<sup>28</sup>, Bob Reebie<sup>43</sup>, and Leonard Russum<sup>47</sup>.

We of the Chicago Club never fail to be impressed and inspired by the fine co-operation we receive from the Institute staff and Alumni of the other M.I.T. clubs whenever we find it necessary to call for help. It was largely because of this enthusiastic co-operation that it was possible to extend our invitation to the Centennial Eve Dinner to all the M.I.T. Alumni who were attending the Centennial, as well as Alumni in adjoining towns and states. In this regard, we were especially thankful for the work done by Professor John B. Wilbur<sup>26</sup>, Head of the Department of Civil and Sanitary Engineering.

The fine program planned by the Dinner Committee was undoubtedly a major factor in drawing such a fine turnout. The chance to meet the many notable people at the head table was in itself an opportunity not often equalled in affairs of this kind. This group was comprised of James M. Barker<sup>07</sup>, chairman of the board of the Allstate Insurance Company, and Mrs. Barker; George D. Camp<sup>16</sup>, President of the M.I.T. Club of Mexico; Dr. and Mrs. Karl T. Compton; Clarence D. Howe<sup>07</sup>, Canadian Minister of Trade and Commerce and Minister of Defense; Major Lenox R. Lohr, President of the Centennial of Engineering Convocation, and Mrs. Lohr; John C. Praetz<sup>28</sup>, President of the M.I.T. Club of Chicago, and Mrs. Praetz; Donald P. Severance<sup>38</sup>, Secretary of the M.I.T. Alumni Association; John C. Sharp, President of the Hotpoint Company, and Mrs. Sharp; John B. Wilbur<sup>16</sup>, Head of the M.I.T. Department of Civil and Sanitary Engineering; Robert E. Wilson<sup>26</sup>, chairman of the board of Standard Oil Company of Indiana, and Mrs. Wilson.

Although the prior announcements pointed to the interesting subject of Mr. Sharp's talk, they could not foretell the treat that was in store. Mr. Sharp's talk was on "the lighter and most interesting



phases of designing and engineering appliances to meet the boundless desires of the engineer of the kitchen—the Mrs. America of today.” A finer combination of light humor and sound, incisive insight into the purpose, method, romance, and opportunity of engineering could not be imagined.

The officers who will guide the M.I.T. Club of Chicago in the 1952-1953 season were elected at the final meeting last spring and are: President, John G. Praetz '28, Hotpoint Company; Vice-president, F. Richard Meyer '42, Acme Steel Company; Treasurer, Lester Kornblith, Jr., '38, Institute for Nuclear Studies, University of Chicago; and Secretary—ROBERT S. REEBIE '43, Reebie Storage and Moving Company, 2325 North Clark Street, Chicago 14, Ill.

### **Detroit M.I.T. Association**

Being in the center of the automotive industry, it was very appropriate that on Saturday, September 13, the Detroit Alumni had the good fortune to be the guests of C. A. Chayne '19 for lunch and a tour of the General Motors Proving Ground. Mr. Chayne is vice-president in charge of engineering staff, General Motors Corporation. Over 100 Alumni from Detroit and vicinity attended the inspection tour of this unusual engineering testing facility of the automotive industry.

Officers for the coming season are: President, Adam K. Stricker, Jr., '29; Vice-president, W. H. Bagley '35; Treasurer, Everett V. Martin '24; Honorary President, John E. Longyear '26; Secretary—JOHN M. CAMPBELL '25, 1333 Glengarry Road, Birmingham, Mich.

### **M.I.T. Club of Fall River**

On a perfect June day, Wednesday, the 25th, men of the M.I.T. Club of Fall River were guests of our Executive Vice-president, Robert Ashworth, Jr., '25. The outing started with a gay trip down Narragansett Bay in two cabin cruisers under the able captaincy of Bob Ashworth and his good friend, Sanford Chace. I have never seen the Bay so smooth: It was like a millpond, so we were all good sailors and enjoyed the view of the Rhode Island Coast and the numerous naval ships at Newport as well as the friendships made on the trip. We had a clear view of the estate of Rudolf Haffenreffer '95, our Club President, at Mt. Hope where, on previous occasions, we have so often enjoyed Rhode Island clambakes.

After returning to the Tiverton Yacht Club, we went to Bob Ashworth's home where the beauty of the surroundings and the vista of the Sakonnet River, the Bay, and the mainland beyond made a perfect setting. A fine buffet supper was served on the terrace and lawn under the gracious direction of Mrs. Ashworth and her lovely daughters. The friendly atmosphere and the informality of the occasion provided the opportunity for us all to get better acquainted and to visit with Joe Snyder, 2-44, fiscal officer of the Institute, Don Severance '38, Alumni Secretary, and Rudolf Haffenreffer, member of the Corporation. Our genial host, Bob

Ashworth, made everyone feel at home and we were fortunate in having Dom Hilary Martin '30, one of our club members, present to grace the occasion.

Joe Snyder told us of many interesting developments at the Institute, giving us a realization of the remarkable advances that have been taking place during the past years and the promising outlook for the future. We were all enthused and certainly are more proud than ever to be Technology men and to do our part in influencing bright young men to attend the Institute—men who give promise of being leaders of the future.

The following men were present, either for the boat trip and the evening, or for the evening only: Alan Andrews '33, Robert Ashworth '25, Robert Burnett '10, John Carvalho '28, Frank Coy '49, Alexander D. Daunis '32, Richard Dunlap '40, Charles Epstein '40, Dr. Ernest Fell '30, William Flynn, Jr., '42, Alfred Gatzemeier '02, Richard Gee '20, Lester Glickman '32, Rudolf Haffenreffer '95, Benjamin Hampshire '25, John Hampshire '48, Oliver Jennings '08, David Kaufman '23, Harold Keene '49, Joseph Kennedy '26, Warren Martell '30, Hilary Martin '30, Leo McNally '18, Duncan Owler '16, Miles Sampson '08, Isaac Schwartz '32, Donald Severance '38, Joseph Snyder, 2-44, Matthew Sullivan '31, Charles Warner '89, George Wood, Jr., '38.

As a special guest, Alexander D. Daunis '32, President of the M.I.T. Club of Rhode Island, urged us all to attend a clambake which was planned by his Club for some time in August.

We all appreciated the generous hospitality of our host, Bob Ashworth.—ROBERT F. BURNETT '10, Secretary, 242 Lincoln Avenue, Fall River, Mass.

### **M.I.T. Club of Hawaii**

The Club held a dinner meeting at the Pacific Club in Honolulu on the evening of April 2. Our guest and principal speaker of the evening was Emmons Whitcomb '11, who came from Cambridge for a brief visit here.

Some 15 Alumni enjoyed a very pleasant and interesting evening. Mr. Whitcomb gave a very thoughtful and thorough picture of what the Institute is today—with its many remarkable scientific programs and its objectives that so well maintain its leading educational position and prestige. It is one thing to read of these things in *The Review*; but, at this distance, it is very gratifying to have them all so ably reviewed and explained by an able speaker.

All of us felt greatly indebted to Mr. Whitcomb and also to H. E. Lobdell '17, who was thoughtful enough to arrange to have him meet with us.—WALTER T. SPALDING '10, President, W. T. Spalding Company, 77 Merchant Street, Honolulu 13, Hawaii.

### **The M.I.T. Club of the Lehigh Valley**

The annual spring meeting of the Club was held on Friday, June 20, at Fred Waring's Shawnee-on-Delaware, four miles north of the Delaware Water Gap.

We were fortunate in having superb weather which, together with a turnout of 50, made for a successful meeting.

Our spring meeting is attended by wives and sweethearts and is traditionally a social affair. Following an excellent buffet, a short business meeting was held after which members enjoyed the dancing and other facilities of the inn.

Officers elected to serve for the 1952-1953 term were: President, Isidor Loss '22; Vice-president, Henry Moggio '28; Secretary, J. D. Briggs '42; Treasurer, A. F. Gould '38; Members at Large, W. V. Bassett '39, J. P. Brosnahan '35, E. J. Flynn '19, M. V. Herasimchuk '39, and A. C. Zettlemoyer '41.

Sincere sympathy of the Club was extended to Mrs. Louis A. Wilson, whose husband, Louis A. Wilson '14, died this spring. Mr. Wilson was a charter member of our local Club and was one of its most loyal and consistent supporters. Mr. Wilson served as president of the Club for the 1949-1950 term.

Congratulations were in order for Allison Butts '13 who has recently been appointed head of the Department of Metallurgy at Lehigh. Also to be congratulated is Arthur F. Gould '38, who has been appointed head of the Department of Industrial Engineering at Lehigh.—JOHN D. BRIGGS '42, Secretary, 131 Wall Street, Bethlehem, Pa.

### **M.I.T. Club of Milwaukee**

The Club opened the year with its annual picnic, held again this year at the lovely home of Harold Koch '22, Pewaukee Lake, on Saturday, September 6. With members, their families, and guests, a total of 81 people were present in spite of the cool and at times cloudy weather. Many took advantage of the stiff breeze which was blowing and had a damp but invigorating sail on the lake. Others just chatted and renewed acquaintances. Among the members attending were Jack Ballard '35, M. F. Biancardi '40, W. R. Bohlman '49, W. W. Bonns '99, S. B. Bragdon '20, G. M. Chase '38, J. B. Cobb '37, F. R. Gruner '41, A. G. Hall '25, C. E. Hoerig '38, E. F. Hulbert, Jr., '36, H. W. Huston, Jr., '45, C. W. Jackson '49, A. E. Jakel, 2-44, H. E. Koch '22, P. A. Koehring '49, M. M. Kuban '37, J. H. Meier '38, C. E. Meyer '36, J. C. Monday '51, M. E. Nohl '35, F. J. Port, Jr., '40, M. A. Rafi '52, W. A. Rakji '51, L. D. Smith '06, C. L. Soltenberger, 10-44, E. E. Staples '26. The picnic had an international atmosphere through the number of countries represented by members and guests. These included Norway, Germany, and Pakistan.—CHARLES L. SOLLENBERGER, 10-44, Secretary, Process Laboratory, Allis-Chalmers Manufacturing Company, Milwaukee, Wis.

### **The M.I.T. Club of New York**

Our annual golf outing was held at the Scarsdale Country Club on June 5. The weather was perfect and there was a good crowd on hand. It was unfortunate that the Class of '22 had their reunion on the next day and were missing. F. E. Russell '28 had no Larry Davis '22 to give him a

battle and easily won the club championship again. The rest of the world did not accept our challenge for the Inter-Club Trophy. We want to earn it fairly and will wait for next year.

The summer was used for organizing the Club under the leadership of Pete Grant'35. Our plans for the winter are well advanced. The Silver-Stein Award Dinner will be held on Wednesday, December 3, at the Waldorf-Astoria. Dr. Kilian will be with us to bring us up to date on Institute activities and will present the New York Club's Silver Stein to an outstanding Alumnus and club member. We will announce the main speaker for the evening in the very near future. This affair was an outstanding success last year and all of the Alumni are again invited. Tickets are priced at \$10.00 a person. Bernie Nelson'35 is chairman and should be contacted through the Club for any further information.

Our year will have already started off with our annual beer party at Ruppert's Brewery on October 14. The beer is again on the house and dinner will be served. Lou Bruneau'38 is chairman.

On February 25, the Club will enjoy a "Day in the Future." Socks Kinsey'24, with M. R. McGuire'41 and Dave Jealous, 2-44, are organizing a group of M.I.T. staff experts and New York specialists for a day's session on important scientific advancements.

Our New Quarters Committee is very active at present and may come up with some important news in the near future. For the present, at least, we are at the old stand at 115 East 40th Street and invite you all to visit us. — RALPH C. WILTS'41, Secretary, American Blower Corporation, 50 West 40th Street, New York 18, N.Y.

### **M.I.T. Club of Northern New Jersey**

The final meeting of the Club for the 1951-1952 season was held at the Hotel Suburban, Summit, N.J., on June 4 and was attended by 104 members and guests. The treasurer reported that as of this meeting the Club has 207 members.

The Club entertained 33 prospective students for the entering class this fall. These young men have been accepted by the Institute but all have not signified their intention of entering, as some are looking around for more favorable scholarships at other engineering schools. The Scholarship Committee reported that on April 4 and 5 they interviewed 90 prospective entrants for this fall who applied for scholarship aid and they awarded 37 scholarships. The New Jersey Regional Scholarship, sponsored by our Club, amounting to \$800, went to David Mott of Montclair; and the William Barton Rogers Scholarship of \$1,000 was awarded to G. H. Lührman of Cedar Brook, N.J. The balance of the scholarships ranged from \$200 to \$600 and all of them covered assistance for the freshman year only.

The following officers and governors were elected: Officers for 1952-1953: Grover C. Paulsen, Jr., '40, President; Glenn D. Jackson, Jr., '27, Vice-president; Russell P. Westerhoff'27, Secretary;

Joseph Wenick'21, Treasurer; Governors for three years — Albert C. Faatz, Jr., '37, Russell E. Lowe'16, Geoffrey M. Rollason '13; Governor for two years — Donald H. Spitzli'27.

Willy Ley, one of the world's leading experts on rockets and space travel, was guest of the evening and spoke on the "Conquest of Space." He explained that rockets were not a new or a recent invention, that they had first been mentioned in a Chinese chronicle in 1232, were reported in Europe 50 years later, and first used for large-scale military purposes in 1800. A British Army officer developed a rocket in 1804 that was used to propel bombs, which is the device referred to in our "Star Spangled Banner." From 1300 to 1700, rockets were propelled by gunpowder. A Dutchman in 1712 was the first to use steam for propellant. Mr. Ley was one of the founders of the German Rocket Society in 1927, which was organized to raise money to carry on experiments with different types of rocket fuels, especially the development of a liquid fuel. The Society was disbanded in 1933 when Hitler came into power. One of the members is with the Russians, the others left Germany and most are now in the United States. The solid-type fuel rocket, when ignited, continues to burn until the fuel is spent, whereas with the liquid fuel rocket the flow of the fuel can be regulated and stopped at will. The solid fuel type motor operates at a high temperature and pressure while the liquid fuel type operates at about 300 psi. It is possible to pump the fuel from low-pressure storage tanks and deliver it to the motor at 300 psi which saves a great deal of weight although it requires a large size rocket.

The first liquid fuel motors used gasoline and liquid oxygen but the motor lasted only three seconds as the temperature was greater than the melting point of the steel. A ceramic lining was tried next which also proved unsatisfactory. Other metals were tried and water was used in a cooling jacket and later injected into the motor. In the final solution, alcohol replaced liquid oxygen. To reduce weight it was found that cooling water could be mixed with the alcohol and the fuel run through the cooling jacket to the combustion chamber. In order to reach greater heights the payload was replaced by a second rocket, thus making it possible to reach a height of 250 miles. Mr. Ley stated it would be possible to make a three-step rocket consisting of 1-ton, 12-ton, and 60-ton components and that this could be done using the fuels known at present, without any new inventions or features. He remarked that the smallest orbital rocket that would stay in space and revolve around the earth as the moon does would require a take-off weight of 100 tons and a remaining weight of  $\frac{1}{2}$  ton. Such a 100-ton rocket would cost one million dollars per ton to produce. He predicted that if it were possible within a development period of 20 years to perfect a liquid fuel motor capable of driving a rocket to a height of 250 miles, and this same rate of development took place the next 20 years, it would be possible to produce a rocket to reach the moon.

On September 16 the officers, gover-

nors, and committee chairmen met at Hotel Suburban, East Orange, to launch the current year's program. Grover C. Paulsen, Jr., '40, President for the current year, announced committee appointments: Program: Stuart C. Stearns'39, chairman, Donald H. Spitzli'27, Fletcher P. Thornton, Jr., '36, John B. Drisko'27. House: A. Donald Green'26, Clarence Van C. Chamberlin'23, co-chairmen, George J. Saliba'27. Attendance and Reception: Chester A. Williams, Jr., '39, chairman, L. W. Trowbridge'22, Newton S. Foster'28, Albert C. Faatz, Jr., '37. Placement: H. D. MacDonald'22, chairman. Scholarship: Donald D. Way'19, chairman, William S. La Londe, Jr., '23, Geoffrey M. Rollason'13, George F. Des Marais'20, Lyman L. Tremaine'23. Educational Council: Sumner Hayward'21, chairman, Edwin S. Lockwood'21, Newton S. Foster'28, Carole A. Clarke'21, George F. Des Marais'20, Donald D. Way'19, Herman A. Affel'14, Lyman L. Tremaine'23, Frank O. Pierson'29, Channing P. Clapp'23, David D. Lewis'31.

Plans for the year include holding at least four meetings, two of which will be held in East Orange, one in Summit, and one in the Paterson-Passaic-Ridgewood area. Last year's experiment in dividing meetings between East Orange and Summit pointed to the possibility of further spreading the geographical coverage for meeting places. — RUSSELL P. WESTERHOFF'27, Secretary, 823 East 23rd Street, Paterson, N.J. JACK F. ANDREWS'33, Assistant Secretary, 209 Tuttle Parkway, Westfield, N.J.

### **M.I.T. Club of St. Louis**

On Saturday, June 28, 1952, the Club held its annual picnic at the country estate of Mr. Joseph Desloge'12. Mr. Desloge's estate, "Vouziers," is located on the bluffs overlooking the Missouri River. This year we were more fortunate than last year as far as the weather was concerned. We enjoyed a perfect day for swimming and other outdoor sports. In the evening a delicious barbecued chicken dinner was served. Immediately following dinner, everyone assembled on the terrace in front of the fountain for the distribution of prizes and the playing of games.

Those Alumni and their wives who attended the picnic were: Mr. and Mrs. G. N. Andrews'29, Mr. and Mrs. Ed Fulton'30, Mr. and Mrs. Edwin J. Grayson '17, Mr. and Mrs. Robert L. Morton'24, Mr. and Mrs. Robert M. Edholm'45, Laurence P. Russe'41, Mr. and Mrs. E. J. Mackey'39, Mr. and Mrs. John O'Meara '43, Mr. and Mrs. Charles H. Hurkamp '27, Mr. and Mrs. Eugene Weil'21, Wallace C. Philoon'47, Mr. and Mrs. Calvin P. Bascom'04, Mr. and Mrs. Donald K. Morgan'32, Mr. Joseph Desloge'12, Mr. L. B. Feagin'24, Mr. and Mrs. Leland K. Cowie'22, Mr. and Mrs. William A. Hanpeter, 9-46, Mr. and Mrs. David S. Weddell'41, Mr. and Mrs. Stanley K. Landgraf'47, Raymond B. Woodward'49, Mr. and Mrs. Edward M. Brooks'39, Mr. and Mrs. Ellis C. Littman'33, Mr. and Mrs. Eric P. Newman'32, Mr. and Mrs. A. J. Pastene'13, Mr. and Mrs. Ted Rim-



bach'34, Robert W. Hanpeter'48, James C. McAllister'50, Herbert Destaeble'21, Thomas R. Reyburn'13, Henry C. Sharp, Jr.'50, Marcel Desloge'12, Mr. and Mrs. Robert J. Joyce'28, Mitchell V. Allen'24, Mr. and Mrs. Theodore E. Burke'38, Hugh B. Morrison'48, Mr. and Mrs. Charles M. Nohavec'48, Mr. and Mrs. William F. Hecker'42, Mr. and Mrs. Wesley W. Wedemeyer'30, Richard L. Bliss'42, Edmund C. Little'98, Mr. and Mrs. Leon N. Zaitzevsky'26, Mr. and Mrs. William F. Saunders'19, George A. Siegelman'37, John E. Taylor'46, Mr. and Mrs. David Q. Wells'30, Mr. and Mrs. I. R. Mitchell'30, Stewart Scott'50, Mr. and Mrs. David Kobick'47, Mr. and Mrs. James J. Mazzoni'31, Mr. and Mrs. Arthur L. Lowell'41, Mr. and Mrs. A. R. Krenkel'46, John Mello, Robert W. Keating'42, Mr. and Mrs. Kenneth A. Marshall'47, Mr. and Mrs. John Sweeney'33, Mr. and Mrs. John S. Wood, Jr.'34, Mr. and Mrs. Ted Heim'32, Paul F. Ely, Jr., 2-44. — WILLIAM A. HANPETER, 9-46, *Secretary*, 1502 St. Louis Avenue, St. Louis 6, Mo.

### **M.I.T. Club of Schenectady**

The Club has had five quite successful meetings since our last report in *The Review*. Forty-one Alumni and guests met on February 26 at a luncheon to hear Paul Humphrey of the Schenectady Trust Company discuss the policies, federal regulations, and the mechanics of the commercial banking business. He discussed in particular the basis on which loans and mortgages are granted.

Dr. Hans Rozendaal, consultant on biology and radiation for the research laboratory of the General Electric Company, gave a very interesting talk to the Club on March 25. His subject was the biological uses of radiation and radioactive tracers in the study of plant cell growth and photosynthesis. Dr. Rozendaal's primary interest is in the study of cancer, and he has been led into many other interesting allied fields in his quest of fundamental knowledge on the mechanism of all growth. Thirty-three members and guests were present, including Professor Y. H. Ku'25, of the Electrical Engineering Department at M.I.T.

On April 22, we had the latest meeting of the year. Fifty-two members and guests attended a luncheon to hear Charles F. Green, consulting engineer of the Aeronautics and Ordnance Systems Division of the General Electric Company. Dr. Green showed films and slides and gave a first-hand story of the development of rockets and guided missiles from the German "buzz bombs" and V-2's to the present time.

The last luncheon meeting was held May 27 when 42 members and guests heard Edgar B. Shrope, principal civil engineer for the New York State Thruway Authority, speak on the plans and progress to date on this project, which is of such great interest to residents of this section of New York State.

On the 17th of June we held the first of what we hope will be an annual club family picnic. The response to our meeting notices indicated that 73 adults and

24 children were going to attend. Unfortunately, we had one of the hardest rains of the season on the afternoon of the picnic, and only 47 hardy souls finally made an appearance. To the delight of those that did, however, the evening cleared beautifully, and we had more charcoal broiled steaks than we could eat, along with all the usual salads, drinks, and so on, that one expects on such an occasion. The affair was held at the John Boyd Thatcher Park, located in the Helderberg Mountains about 20 miles from Schenectady.

At the last meeting of the 1951-1952 season, the Nominating Committee, consisting of Harold Chestnut'39, J. S. Quill'41, and W. B. Rodemann, 2-44, announced the results of the election for new officers. They were: R. W. Austin'42, President, J. E. Acker'38, Secretary, and C. F. Barrett'34, Treasurer. — ROSWELL W. AUSTIN'42, *Secretary*, 1262 Lowell Road, Schenectady 8, N.Y.

### **M.I.T. Club of Southern California**

The Club was fortunate to have Professor and Mrs. Erwin H. Schell'12 as guests on the evening of March 26 at the Carolina Pines. Ninety-seven M.I.T. men and their ladies gathered from many cities of Southern California to honor the Professor during his visit. Mr. Barriger (John W.'21) of the Monon Railroad entertained the group with his delightful Hoosier wit, and Professor Schell followed with a discussion of "New Horizons in Business and Engineering Administration at M.I.T."

Alumni and guests present at this meeting were as follows: Mr. and Mrs. R. B. Atkinson'29, Mr. and Mrs. J. W. Barriger'21, Mr. and Mrs. P. K. Bates'24, H. E. Beebe'10, D. J. Bloomberg'26, R. H. Boden'34, Z. M. Briggs'00, Mr. and Mrs. Warren Brown, A. Cherkin, B. S. Coleman'19, R. T. Collier'18, J. A. Crutcher'42, J. S. Cullison'41, Mr. and Mrs. G. M. Cunningham'27, Homer S. Davis'24, C. W. Doten'39, J. J. Dysart'33, A. M. Goldstein'47, Mr. and Mrs. P. E. Golsan, Jr.'34, Floyd Graham, Mr. and Mrs. Rockwell Hereford'24, R. E. Hiller'31, W. Barton Jones'23, J. O. Johnson, 2-44, H. S. Johnson'12, Andrew F. Kay'40, J. W. Kendall'21, J. B. Kendrick'34, S. A. Korylak'50, S. Trowbridge Leavitt'35, Mr. and Mrs. W. Scott Libbey'43, Mr. and Mrs. William H. MacCallum'24, A. A. Markus, 2-44, T. H. Martzloff'49, William Mellema'15, W. F. Monroe'48, Mr. and Mrs. Paul S. Morgan'36, H. M. Morley'03, George Piness'49, L. W. Powers'23, Mr. and Mrs. J. J. Quinn'42, R. B. Rypinski'30, Mr. and Mrs. J. McL. Reed'42, W. E. Richards'23, Mr. Richardson, C. C. Roden, 2-44, Ford Sammis'28, S. J. Shaffer'29, Mr. and Mrs. E. H. Schell'12, Mr. and Mrs. W. V. Schmiedeke'12, Mr. and Mrs. Ralph W. Seely, L. V. Sloma'48, Mr. and Mrs. W. L. Stewart, Jr.'23, Elmer C. Strayer'23, J. S. Thomas'49, and Craig Williams, 2-44.

The Union Oil Company of California was host to 61 M.I.T. men and their guests on a tour of the company's research center in Brea, Calif., on June 3. W. E.

Bradley gave a short talk describing the program of the research plant and the general layout of the center. Dinner was served in the dining room after which a tour was made through the beautifully equipped and very attractive laboratories. Hosts at the research center, in addition to Dr. Bradley, were R. S. Crog, C. C. Moore'20, L. W. McLennan, and Ray Rogers. Alumni attending this event were as follows: F. F. Low'93, Frederick Salathe, Jr.'09, Harry T. Rollins'04, Albert F. Hill'14, Max Untersee'19, John H. Driggs'21, Jack Kendall'21, Sam Lunden'21, Paul C. Merrill'22, Marcus A. McClure'22, Phil Bates'24, Homer Davis'24, Rockwell Hereford'24, Bill MacCallum'24, Harry Postal'25, Bob Cook'30, Robert E. Hiller'31, Bob Boden'34, Jim Kendrick'34, Henry Paronelli, John Andreas'37, H. E. Britton'38, Bill Burrall'38, H. H. Strauss'38, Andy Kay'40, Dave McKay'43, L. E. Stewart'43, Jon Edwards, 2-44, Alvin Markus, 2-44, Robert E. Goldstein'47, George Piness'49, Herb Riegel'49, I. F. Thomas'49, and Earl G. Cole'51. — PHILIP A. HERRICK'24, *Secretary*, 737 Terminal Street, Los Angeles 21, Calif. JAMES S. CULLISON'41, *Assistant Secretary*, 6567 West 84th Place, Los Angeles, Calif.

## **CLASS NOTES**

### **• 1883 •**

The Secretary regrets to report the death of a classmate of 1883, James H. Hutchings, who died on July 4, 1952. The newspaper clipping notice is as follows: "James H. Hutchings, 90, of Greenfield [Mass.], former Phillipston selectman, died . . . in Exeter Hospital, Exeter, N.H. A graduate of . . . Technology in 1883, he was instrumental in obtaining the first stretch of state highway in the area, a section running through Phillipston. He left Phillipston in 1917 to make his home in Hampton, N.H. Two nieces and a nephew are his nearest survivors. . . . Burial is to be in Pine Grove Cemetery, Lynn." — HORACE B. GALE, *Acting Secretary*, 10 Highland Street, Natick, Mass.

### **• 1886 •**

Since the writing in May of the latest class notes, several things of interest to members of '86 have occurred. First and closest to the heart of the Secretary is the notice of the death on Monday, July 7, of Harry E. Clifford at his home 942 Beacon Street, Newton Center, Mass. Professor Harry Ellsworth Clifford, M.I.T.'86, entered the Institute as one of the younger, if not the youngest, members of the Class, having been born in April, 1866. Being in the C group of '86, as was also the present Secretary, we were in the same section at recitation, lectures, and military drill, and chose electrical engineering for our future lifework in which he continued until his retirement while I left it for the profession of certified public accounting.

This association brought us into rather

close companionship, and for the greater part of one year we lived in the same house in South Boston in the family of a Mrs. Elizabeth P. Goodrich, who mothered us both. Harry was a visitor in my home in Haverhill, Mass., for week ends and was much appreciated by my parents for his keen mind and engaging personality. After his marriage, we spent a part of some vacations at the Isles of Shoals in the old Appledore House, and our daughters, of whom we each had one, were friends. Of late years we had not seen much of one another, my daughter marrying and going to live in Seattle, and his daughter taking the place of her mother after her death and making a home for him. Although I knew he had not been well, I did not know his illness was serious and was very shocked to read of his death in the papers.

At the time of the funeral I was being treated for a fractured left arm and felt unable to attend; now he will not be able to attend mine when it comes!

From the columns of the *Boston Globe* of July 9, I have made the following extracts in relation to Professor Clifford's activities: "One of the pioneers in electrical engineering in this country, Professor Clifford was adviser to many cities and towns on installations of electric lights. He also was consultant to Massachusetts and to some of the country's leading electrical firms. A native of Lowell, Prof. Clifford was graduated from . . . Technology in 1886 and later did graduate work at Harvard. He was editor of more than 30 electrical engineering textbooks that have become standard works in the field. Professor Clifford was appointed to the M.I.T. faculty and became a full professor there in 1904. He was named Gordon McKay Professor of electrical engineering at Harvard in 1909, and in 1930 was appointed dean of the Harvard School of Engineering. He took the lead in bringing about a major reorganization of the school, changing its emphasis from undergraduate work to graduate work."

As you may recall from earlier class notes, I mentioned that our classmate Birney C. Batcheller, who died at Wallingford, Vt., on November 27, 1950, named M.I.T. to participate most generously in his estate. Word has recently been received from the treasurer, Mr. Snyder, that the Institute has received a cash distribution from the Batcheller estate amounting to \$85,240.00. Not so bad for the Class of '86, the members of which express their thanks to classmate Birney for bringing the Class into the limelight.

Would there were more similarly inclined and financially able to follow his example. There have been other deaths among our membership during the past months; these will receive due notice in the December issue of *The Review*.—ARTHUR T. CHASE, *Secretary*, Post Office Box 4, Island Creek, Mass.

### • 1887 •

N. P. A. Carter addressed your Secretary in May that he is "alive and kicking." A newspaper clipping received shows Mr. and Mrs. Oscar Nutter happily smiling, about to cut a huge wedding cake on June 16, the 60th anniversary of their

wedding. The clipping states that since his retirement, Mr. Nutter has remained treasurer of the Vita Needle Company of Needham.

According to your Secretary's rather sketchy list, 41 of the 145 members of '87 listed in the Alumni Register of 1948 as then living have since passed on.

The sad news that Henry Brainerd died April 15 and A. B. Williams, May 25, 1952, has reached the writer.

At a recent meeting of the Chicago M.I.T. Club, the toastmaster, subsequent to introducing President Killian and other prominent personages on the platform, pointed out your Secretary, a member of '87, sitting at a table immediately below the toastmaster and reserved for ancient grads. There was one other present of '96 — and both took a bow.

The approaching election reminds the writer of the night of the election of 1884 when a group of '87 men, marshaled, if my recollection is correct, by George Davenport, and supplied with oilcloth capes, caps, and oil torches, marched for Grover Cleveland down Boylston to Tremont, through the Young's Hotel alleyway to Washington Street, and cleared the space in front of the newspaper bulletins of Harvard boys similarly accoutered and armed. — RICHARD E. SCHMIDT, *Secretary*, 104 South Michigan Avenue, Chicago 3, Ill.

### • 1890 •

Our 62d anniversary was a disappointment; Crane and Sherman, who had planned to be present, were incapacitated; Lenfest, who usually comes, was going to the graduation of a granddaughter at Swarthmore; and Tilson was preparing to go to Nova Scotia, to keep cool for the summer. Burley, Greenlaw, and Packard showed up and had an enjoyable luncheon, recalling absent classmates and observing the new buildings and changes. Burley did not feel like coming in for the evening, and Greenlaw wished to return to Newport, so Packard was the sole representative at the banquet.

Sherman reports that he has entirely recovered from his slight accident, but John Crane has passed on. What seemed that morning to be a slight intestinal trouble developed into a strangulated hernia. An operation the next day appeared to be entirely successful and when Packard saw him four days later he was planning to be dressed and was feeling well, and so continued up to an hour before he died on June 19. Crane started his professional work early. Sherman reports that "in the summer after our second year we both worked as draftsmen and transimen for the same engineer, and for a time roomed together." After graduation, Crane worked for a number of companies, including the Barber Asphalt Pavement Company, and for the street department of the city of New York. He did some railroad work in the West, and was in the contracting business in New Jersey and New York. Before 1912 he had been to London and to the West Indies, and he told us at one of our meetings he built the largest paving plant in the world. In 1912 he became superintendent of the Washington Fertilizer Company which

handled the garbage from Washington, D.C., and in 1919, when this was taken over by the government, and at their request, he continued in charge until two years after the retiring age. Besides his degree at M.I.T., he received from New York University the degree of master of laws. John was fond of nature, and about 1916 he bought "Leesylvania," which was noted in Revolutionary times as the property of "White Horse Harry Lee," a tract over a mile long, containing 1,100 acres, about 25 miles south of Washington, which he said had a lot of good oak flooring as well as pines. He continued to hold this until a year ago. John never married, but for many years, both near New York and at Chevy Chase, Md., just outside of Washington, he lived with the same family. He leaves a brother, George (M.I.T. '07), and two sisters. One of the most faithful attendants at our meetings, he will be much missed.

We note that at a spring meeting of the M.I.T. Club of Philadelphia, attended by Dr. Compton and President Killian, Pierre du Pont made available his famous Longwood Gardens, and 660 Alumni, wives, and friends were served dinner, with 200 turned away. — GEORGE A. PACKARD, *Secretary*, 53 State Street, Boston 9, Mass. CHARLES W. SHERMAN, *Assistant Secretary*, 16 Myrtle Street, Belmont 78, Mass.

### • 1892 •

We celebrated our 60th reunion with a very pleasant gathering at luncheon at Longfellow's Wayside Inn at South Sudbury, Mass., on Saturday, June 7. Eight members of the Class were present: Harry A. Burnham, Boston; Harry J. Carlson, Newton Center; Arthur J. Ober, West Medford; Frank E. Perkins, Mt. Vernon, N.Y.; Dwight P. Robinson, Pocasset, Cape Cod; Channing M. Wells, Sturbridge; Dr. Arthur M. Worthington, Dedham; and the Secretary. It was a beautiful June day and the renewal of old acquaintances was thoroughly enjoyed by all. The old kitchen of the Inn, with the original fireplace, served as a private dining room.

Channing Wells reported that he had heard from Samuel W. Weis, who was with us in Course I, and is chairman of the board of the Illinois Electric Ventilating Company of Chicago, who had been visiting New York and had hoped to be able to come on and attend our reunion. Because of a slight illness, however, his doctor had advised him to return to Chicago.

A letter of regret from Albert P. Mathews was included in class notes in the July issue of *The Review*. — Frederick H. Meserve had written hoping to be with us, but business engagements (he is still active with the firm of Deering, Milliken and Company, N.Y.) made it necessary for him to cancel his acceptance at the last minute. The following from his letter of regret may be of interest to his classmates:

"Perhaps it is not out of place for me to mention something about myself. I have been with a textile concern for 60 years which has grown to empire proportions. Also I have been a student of our



Civil War history and have made a collection of Americana which has become a vast depository of source material. Doubtless because of it and my privately published books I received an honorary degree of doctor of letters. At 60 I began to relax and now for nearly 27 years I have been a moderately bad golfer playing on north and south fairways for the good of my soul."

A letter of regret was also received from Wesley Halliburton of Memphis, Tenn., who had hoped to be with us but was prevented from doing so by a speaking engagement at Vanderbilt University from which he graduated before taking graduate work in Architecture at M.I.T. Later in June a letter came in from Sumner B. Ely, superintendent of smoke prevention of the city of Pittsburgh, Pa., in which position he is still active in supervising the elimination of Pittsburgh's smoke and dirt. He regretted being unable to attend our reunion, stating, "particularly as my health has not been such in the past few years as to let me come to class reunions." The following, extracted from an article in *Air Repair*, a publication devoted to smoke prevention, is of interest: "For nearly thirty years after graduation he [Ely] served in the steel industry in various positions and in 1921 left that industry to join the faculty of the Carnegie Institute of Technology; teaching Thermodynamics and Power Plant Engineering. Three years later he was asked by Gov. Pinchot to serve as consulting engineer on the Pennsylvania Giant Power Survey. In 1936 he was appointed as consultant to the director of the World Power Conference held in Washington, D.C. In 1940 he became professor emeritus at Carnegie Tech and Mayor Scully appointed him technical advisor on the Pittsburgh Commission on Smoke Elimination. In this work he has since been actively engaged. In the report of the Bureau of Smoke Prevention in the Department of Public Health of Pittsburgh, the following figures show that during the heating season only, the reduction of total smoke in 1951 over 1945 was 85% during the hours of moderate smoke, and the reduction of heavy smoke in 1951 over 1945 was 95% during the hours of heavy smoke." Good luck to Ely, with the hope that he will be able to carry on for many years yet.

Regrets were also received from C. H. Chase, R. D. Chase, C. E. Davis, G. B. deGersdorff, H. G. Fairfield, H. R. Fitch, Howard Gilmore, H. M. Greene, J. F. Johnson, Mrs. F. H. Kendall, J. F. Linder, A. P. Marsh, F. E. Newman, L. K. Sherman, E. C. Wells, David Whiting.

On Alumni Day on June 9, six members of the Class were present at the luncheon held in Du Pont Court at the Institute: Burnham, Carlson, Ober, Perkins, Worthington, and the Secretary. The Class was given seats of honor directly in front of the president of the Alumni Association and, at the close of the luncheon, listened to very interesting reports by Alfred T. Glassett '20, President of the Alumni Association, and President Killian '26, and by Robert A. Vogeler '37, whose talk on the occasion was summarized in the July issue of *The Review*. In the course of his re-

marks, President Killian mentioned our classmate, Harry A. Burnham as one of the loyal members of the Alumni Association, whose son followed him as a student of the Institute, and whose grandson is a student of the present time.

Carlson and Ober represented the Class at the banquet at the Statler in the evening.

Having passed our 60th anniversary, it is hoped as the years go on that the members of '92 will continue, so far as they may be able, to take an active interest in the affairs of the M.I.T. Alumni Association. The officers of the Association and your Class Secretary will endeavor in class notes in *The Technology Review* and by other publications to keep you informed.

It is the sad duty of the Secretary to report the passing of five members of our Class. In the July issue of *The Review*, I noted the receipt of information, just as we were going to press, of the death of John Hall, who served as our class secretary 21 years, from 1920 to 1941. Hall was with us in Course IV, entering M.I.T. from Roxbury High School, taking special work in Architecture. He lived all his life, nearly 86 years, in the old homestead, 8 Hillside Street, Roxbury, which had been in the family for over 150 years. After graduation, he entered partnership with Green and Haley, metalworkers and roofers, and later entered the employ of the Commonwealth of Massachusetts as clerk in the Department of Administration and Finance, where he served until his retirement some 15 years ago.

Entering military service in early life, he served as first lieutenant, adjutant, and supply officer of the Massachusetts Cavalry on the Texas border from 1916 to 1918. During this service, his company was made into a machine gun battery in 1917 with the 26th Division. In 1918 he was transferred to the Service of Supply, serving as post adjutant with the rank of captain, at Is-sur-Tille, France, until September, 1919. In 1920 he reorganized Troop A of the Massachusetts National Guard, retiring the latter part of that year with the rank of major in the Officers Reserve Corps.

Prominent in the Masonic fraternity, he served for many years as treasurer of the Roxbury Masonic Association and was a member of All York Right Masonic Bodies. He was a member of the following military organizations: Military Organization of the World War, the Y.D. Military Association, and the Y.D. Club of Boston. He was also a member of the Boston City Club and of the Appalachian Club. He was a member of the Handel and Haydn Society of Boston and the Cecilia Society. We all remember him as a regular patron of the concerts of the symphony orchestra in Boston. He was a member of the Highland Congregational Church of Roxbury, serving that society as treasurer for many years. Hall never married and lived with his sister in the old homestead in Roxbury, who passed on a short time before he died.

Mrs. Homer Lockwood (Mary B. Wills) died at the Massachusetts Osteopathic Hospital on May 29. She was with us as a student in Chemistry. She was the widow

of Homer Lockwood, who was in the textile business until his death five years ago. She was a member of the Massachusetts Horticultural Society. Mrs. Lockwood leaves two sons, Philip and Raymond A. Lockwood, and a daughter, Lina Lockwood.

Mrs. Thomas M. Keene (Edith G. Shankland) died on March 30, 1952. She was associated with us as a special student without course designation.

Ralph H. Sweetser died on June 29 at his summer home at Wallis Sands, Rye, N.H., after a long illness. Born in Portsmouth, N.H., he entered M.I.T. from the Portsmouth High School and graduated with us in Course III. We all remember Sweetser as our class agent for the Alumni Association for many years. Throughout all his career he specialized in blast furnace practice, starting soon after graduation in what he called "a monkey wrench gang." He progressed through all steps in blast furnace practice to that of superintendent, in the 1930's, of the largest charcoal blast furnace in the world, and he wrote a book entitled *Blast Furnace Practice*. Later he became president and general manager of the Portsmouth By-products Coke Company at Portsmouth, Ohio. He was the first chairman of the Iron and Steel Division of the American Institute of Mining and Metallurgical Engineers. During his career he worked in many locations throughout the United States and Canada, and in his last years of active practice registered as a consulting engineer on blast furnace practice. He was married in 1901 to Sue Stevenson of Wellsville, Ohio, who survives him. He is also survived by two brothers: John Sweetser of Manchester, and Harold Sweetser of Portsmouth. He was a life member of the Gibson Preceptory, Knights Templar in Sault Sainte Marie, Mich., and a member of the Central Presbyterian Church of Columbus, Ohio. He helped to organize and was chairman for 14 years of the Industrial Y.M.C.A. in Columbus.

John F. Vining died suddenly at his home, South Weymouth, Mass., on August 11. Born in South Weymouth, he attended Weymouth Schools, entering M.I.T. from the Weymouth High School, and graduating with us in Architecture. Except for a few years in Braintree, he lived all his life in Weymouth, practicing his profession as an architect, retiring from active practice a few years ago. He is survived by two sons, John F., of South Weymouth, and Allen P., of California; three daughters, Mrs. Margaret Avery of East Braintree, Mrs. Marion Spiers of Poughkeepsie, and Mrs. Frances Low of Mont Vernon, N.H.; six grandchildren; and one great-grandchild. — CHARLES E. FULLER, *Secretary*, Box 144, Wellesley 81, Mass.

## • 1893 •

Myron Hunt, one of the best known architects in California, died at his home in Pasadena on May 26. He was born in Sunderland, Mass., February 27, 1868.

Following three years as an architectural student at Northwestern University in Chicago, he spent the academic year of 1891-1892 studying architecture with

our Class at M.I.T. After further study in Europe for two years, and the practice of his profession in Chicago for five years, he established his office in Los Angeles in 1903. During the past 50 years he had attained an enviable reputation throughout southern California, both as architect and civic benefactor.

He was the architect for Occidental College, Los Angeles, and three other college groups, including Throop Hall, the first of Cal Tech's many buildings. He was also the architect of First Congregational Church, Riverside; County National Bank, Santa Barbara; Los Angeles Ambassador and six other hotels; Pasadena and Ontario Hospitals; and the Rose Bowl and the Hollywood Bowl. His name is also associated with many commercial and industrial buildings, art galleries, Army camps, golf clubs, memorials, residences (including the landscaping), and housing projects. As one of the chief consultants for planning the Pasadena Civic Center, he was called upon to erect what is regarded as one of the most beautiful Civic Center Buildings—the public library, and he was awarded the Pasadena Nobel Gold Medal for the year 1928.

He was a trustee of the Polytechnic Elementary School of Pasadena; a charter member of the California State Board of Architecture; fellow, American Institute of Architects; member, Sigma Chi Fraternity; the University Clubs of Los Angeles and Santa Barbara; Valley Hunt, Overland, and Flintridge clubs of Pasadena; and the California and Ambassador Golf Clubs of Los Angeles.

On May 30, 1894, Hunt married Harriette Boardman who died October 27, 1913. He is survived by four of their five children. On July 3, 1915, he married Virginia Pease, the founder and principal of the Polytechnic Elementary School, and for many years they had worked together in all matters pertaining to civic improvement.

Willis T. Knowlton, who graduated with our Class from Course I, died June 17 at his home in Los Angeles, Calif. He was born in Malden, September 12, 1871. For the past 47 years he had worked as assistant city engineer in charge of sewers, and consultant with the Los Angeles City Bureau of Sanitation. Previously he had been engaged in similar work in Boston, Needham, Andover, and Everett, Mass., and from 1899 to 1901 was assistant engineer for the Hawaiian Government, in charge of sewerage and drainage systems for Honolulu. For the next three years he was resident engineer on hydraulic and sanitary engineering work in Pennsylvania, Virginia, New Jersey, Ohio, and Michigan for Hering and Fuller, hydraulic and sanitary engineers of New York City.

Knowlton was a member of the Boston Society of Civil Engineers, and a life member of the American Society of Civil Engineers. He was also a member of the American Public Health Association, and the Federation of Sewage Works. He was a past president of the Los Angeles Board of Health, and a member of Delta Upsilon Fraternity. He is survived by two sisters, Mrs. Marian K. Misbeek and Miss Alice Knowlton; three brothers; two

grandsons; and one great-granddaughter.

We have a few copies of the report of our 50th anniversary reunion meeting, held June 5, 1943 at the Brookline Country Club, which will be mailed free of cost to members of the Class who may now desire another copy of the book.

All class officers were re-elected at our luncheon meeting last June, including L. B. Buchanan, President, who will also serve as chairman of the 60th anniversary reunion committee in 1953. — FREDERIC H. KEYES, *Secretary*, Room 5-213, M.I.T., Cambridge 39, Mass. GEORGE B. GLIDDEN, *Assistant Secretary*, 38 Chauncy Street, Boston 11, Mass.

## • 1894 •

The summer is waning and class news is scarce. The Secretary has been at M.I.T. almost every day during the hot months and is still hopeful that his story of Tech in Boston will eventually be ready for the press. It has now been three years or more in the making, with some additions, and more subtractions and revisions; but it is hoped that it will finally be reasonably correct and readable.

Alumni Day passed off with usual success, but the Secretary had to be in Grand Rapids on that date and so missed it. According to reports, the Class was represented by Ed Hunt, who always comes down from Portland for the occasion.

Our distinguished inventor, Henry E. Warren, sometimes called "the man who electrified Father Time," celebrated his 80th birthday on May 21. A very appreciative account of Henry's career was published in the Framingham News on that day in recognition of his scientific and civic activities. Henry began his inventions before graduation when he had a major part in the production of the thermophone, a device much used in the study of the temperatures in lakes and reservoirs. He originated the first electric clock, which has changed the living habits of 20 million Americans. The News article stated that the electric clock idea "was literally hatched in a hen house" on Warren's farm in Ashland. Its perfection led to the establishment of the Warren Telechron Company, Ashland's largest industry, and to the development of the master clock that has had almost universal adoption in the power industry.

His activities have extended in many other directions, as he has for many years been a director of the Wellesley Institute of Social Progress, and has been prominent in 4-H work in his community and in other good works. He and his wife have always been among those who have made our class reunions so successful, and so generously made memorable by his excellent photographs sent to those attending. He is Ashland's most prominent and useful citizen and has played a great part in the development of that fine town. Active still in outdoor recreations, he is truly 80 years young. Congratulations and welcome to the brotherhood of the '94 octogenarians.

Not less youthful and useful at 80 is Charles C. Abbot, long secretary of the Smithsonian Institution at Washington, and, since his retirement from the position, a research associate there. He is still

very productive scientifically, as his frequent papers dealing with solar radiation and weather have indicated. The latest, dealing with solar radiation and precipitation at Peoria, Ill., has just come to hand. We might almost certainly claim that Abbot knows more about the secrets of weather and long-range prediction of rainfall, especially for the areas he has studied, than any other man today. So '94 has the country's experts on time and weather in the modest personages of Warren and Abbot.

Walter V. Brown returned from Orlando to his summer stamping ground in Belfast, Maine, in May; and Jim Kimberly made his usual summer trek from Tryon, N.C., to Neenah, Wis., in the same month. Presumably their pendulums of action will swing back southward as the cold weather comes along. Lucky chaps!

It is with great regret that the Secretary announces the deaths of Mrs. Virginia Claflin Pratt, daughter of Alan and Mrs. Claflin, and of John K. Phelan '27, the elder son of our late classmate, Professor Joseph W. Phelan of Technology. Mrs. Pratt, who was a sculptor of high reputation and skill, died suddenly in Seattle, where she had long had her studio. John Phelan was an expert electronic engineer in Boston, and his death also occurred after a very brief illness. These eminent children of '94 men were most pleasantly known to some of our classmates, and the news of their demise will bring sympathy and regret. — SAMUEL C. PRESCOTT, *Secretary*, Room 5-213, M.I.T., Cambridge 39, Mass.

## • 1895 •

The June Alumni reunion was attended by two "faithfuls" of our Class: Rudolf F. Haffenreffer and Edwin C. Alden. Your Secretary was absent for the first time in 30 years, but glad to know our Class was represented. Physical and financial conditions at 40 are bound to be different when one reaches the age of 80.

After many years we finally have a nice note from Thomas M. Lothrop, who is now retired and living in Glencoe, Ill. About a year ago he celebrated his golden wedding anniversary. He comments on the record we have given of the members who have passed on, but is now more interested to learn the whereabouts and doings of those still living. We will try to compile such a record.

We learn through the Alumni Register that Hugh M. Tucker, Course II, passed on May 5, 1947. After leaving M.I.T. he returned to the West, as he hailed from Colorado Springs, but we heard little of him for a long time, having no mailing address. If our records are correct, he served for a time as superintendent of Boys Industrial School, located in Waialeale, Hawaii. His last address was Route 10, Box 130, Fresno, Calif. My personal recollections cover the many boxing matches we had together, for I enjoyed them since he was just a little better with the gloves than I was. James Turner Fitten, Course VI, passed on March 17, 1947. This information was received from his son. For some years Fitten was fire insurance adjuster of the Sun Insurance Office of London, covering the states of



North Carolina, South Carolina, Georgia, and Alabama, with offices in Atlanta, Ga. He was also connected with the South Eastern Printing Company of Atlanta. Mrs. Joseph T. Low, Jr., Course VII, of Marshfield Hills, Mass., passed on June 13, 1952. Some may remember her as Edith Kinsley Joyce.

When you write to Hunsdon Cary, Richmond, Va., be sure to add "Senator," acquired early this year. Benjamin F. Buckner moved from Frankfort, Ky., to 437 Maple Street, Winchester, Ky. Edward Benjamin May is still in Newport, R.I., but at 3 Kay Street. Everell Shipley Sweet is now at 99 Central Avenue, Milton 87, Mass. Leonard M. Barnard, Course IV, passed on July 16, 1952, in Gardiner, Maine, where he had been a life resident. He originally worked for Frederick Danforth, civil engineer, and later conducted his own engineering business.

It is indeed a great privilege to quote the citation read by President Dickey of Dartmouth College, on the occasion of conferring the honorary degree of doctor of laws upon Gerard Swope, on June 8, 1952: "Out of a Missouri beginning, an M.I.T. engineering education, a period as a volunteer worker with Jane Addams in Hull House, and fifty years as an executive in American Industry, you built one of the most broadly useful and respected careers of our times. You were the first of modern managers to lead a large industrial enterprise to greatness by demonstrating that the power of bigness need not be a curse so long as the unit of all human strength, the individual, is not lost to sight. Beyond the bounds of self-interest you backed this precept on many fronts with effort, fortune, and name: playgrounds, college loan funds, the community chest movement, social security, low-cost housing, group health insurance, and most recently the responsible study of Far Eastern affairs—to each of these you brought the forthright best of a partner's help and concern. In recognition of the unflagging quality of your exemplary citizenship, this college extends to you, a Dartmouth father, a genuinely heartfelt welcome into her fellowship as Doctor of Laws."—LUTHER K. YODER, Secretary, 69 Pleasant Street, Ayer, Mass.

### • 1896 •

Welcome back from vacations. May your plans for the coming winter find you in a vigorous and determined position to meet wisely the national problems of the day.

We trust that your interest in national and international affairs has reached a record high, with the end result of placing men of the highest order in command of our country's needs. We all feel that this is a most crucial time, and appreciate the fact that we have a long rough road ahead. May we realize the emergencies.

Alumni Day was celebrated in the best of Technology tradition, and a beautiful June day made the program so carefully planned a perfect evolution of events culminating in the overflow dinner activities at the Statler. At the midday gathering in Du Pont Court, your Secretary chatted with Hattie Gates and shared a table with Bob and Mrs. Davis and Smetters. It was

impossible to claim a class table, thus denying us the advantage of assembling in a group. The Review carried a full account of the proceedings (July, 1952, issue). We were well represented at the Statler Hotel dinner. Our table was directly in the center of the hall and flush to the stage. An evidence of a maturing class if not distinguished. Smetters and Paul Litchfield take the honors as to distance. The others were Jimmy Driscoll, Bob Davis, Perry Howard, Charles Gibson, Henry Grush, Ralph Henry, and your Secretaries. It was a very representative cross section of our Class and your Secretaries wish to take time to acknowledge this fine showing.

We note the ever-increasing prominence of some of our members. Why not supply the Secretaries with a brief digest of individual, continuing accomplishments which multiply despite the years, to be turned over to us for chronicling in the class notes. By so doing we will accumulate an honor roll of which the Class may be justly proud.

Hermann Lythgoe is alert enough to remind us that the Class has distinguished active-minded scientists, whose scientific deductions are sufficient to merit publication in our leading scientific journals. A summary of his article, together with comments on Pauly's research on the Ice Ages, to say nothing of minor contributions by various members of the Class, calls for congratulations to a group of men approaching 80 years of age, members of the Class of '96.

First, we shall quote the conclusions reached by Lythgoe in a paper which was presented to the Association of Official Agricultural Chemists, and which was published in the *Journal of the Association of Official Agricultural Chemists*: "The freezing point of milk from individual cows is distinctively more variable than has been reported by earlier workers in this country. This variability has been demonstrated in milks of known purity taken from a larger number of individual cows than was used for deducing the average and the tolerance prescribed in the A.O.A.C. Methods of Analysis. Extrapolation of the three lines in Figure 4 indicates that there is about one chance in 1,000 that a sample of milk of unknown origin may be the product of an individual cow if the freezing point is as high as  $-0.520^{\circ}\text{C}$ . However, if the analyst has definite evidence that the sample was from the mixed milk of six or more cows, such milk can be definitely declared to contain added water.

"Commercially pasteurized milk usually can be assumed to be a mixture from at least 40 cows, and its freezing point should neither be higher than  $-0.540^{\circ}$  nor lower than  $-0.560^{\circ}\text{C}$ . If such a sample freezes above  $-0.540^{\circ}\text{C}$ , the analyst is probably justified in declaring the presence of added water.

"The literature furnishes overwhelming evidence that the extremely low and high freezing points of milk from individual cows are not found in the mixed milk obtained from herds of 15 or more cows. The following quotations are indicative of the above statement: First, in relation to cow's milk: 'If the protein-fat ratio is less

than 0.7 or the percentage of fat in the solids is above 35.0, samples may be declared watered by a low refraction of the serum, not necessarily below the minimum for all samples of known purity. This is particularly so when dealing with herd milk.' Second, in relation to goat's milk: 'In the absence of specific information relative to the source of the milk, the chemist who is making the analysis must assume that the sample may have been obtained from an individual animal and must base his conclusions as to whether the milk is normal or adulterated by comparison with analyses of milk obtained from individual animals rather than from herds. This is more important in dealing with goat's milk than with cow's milk because the goat herds are small, usually from 3 to 5 goats each, and if any abnormality exists in the milk of any one of these goats, it will not be effectively lost in the mixture, as is usually the case of cow's milk when herds are larger.'"

In the August, 1952, issue of *The Scientific Monthly*, there is an article by our classmate, Karl A. Pauly, entitled "The Cause of the Great Ice Ages." At the beginning of the article, the biographical sketch of Pauly is as follows: "Karl A. Pauly has completed a career as an electrical engineer. A graduate of MIT, he spent his last sixteen years before retirement as managing engineer of GE's Industrial Divisions, and geology was merely a hobby. Even though *The Scientific Monthly's* editorial advisers do not concede that Mr. Pauly has proved A. S. Eddington's thesis of a shift in the earth's crust, they believe he has developed an approach—obvious but new—to a critical analysis of glacial chronology in earth history. Use of his method may result in acceptance of the Eddington hypothesis, but it is too soon to reach that conclusion yet." Then follows Pauly's most interesting and instructive article, which should be read at least by all his M.I.T. schoolmates, whether or not they may be interested in geography, geology, astronomy, or mathematics.

A summary of the article, sent in by our classmate and written by him, follows: "In this paper, I have endeavored to prove that the Great Ice Ages were the results of displacements of the lithosphere. The evidence has been drawn from the three Great Ice Ages: the Pleistocene, the Trias-Jura, and the Permian-carboniferous Ice Ages.

"In the paper I believe that I have shown: (1) That there is an extremely close agreement between the curves indicating the relationship between the terminal moraines of modern and Pleistocene mountain glaciers and their respective latitudes on the assumption that the lithosphere was so displaced, during Pleistocene time, that the North Pole lay progressively under the centers of the great Pleistocene ice sheets of the Northern Hemisphere. This evidence is supported by the warmer-than-normal climates that preceded the glaciation of northwestern Europe, and of Alaska and Siberia during the greater part of Pleistocene time. (2) That the coal deposits laid down during Trias-Jura time lie within the Trias-Jura tropics and subtropics on

the assumption that the South Pole lay under the center of the Trias-Jura ice sheet of Central Africa at this time. These include coal deposits within the Arctic and Antarctic Zones. (3) That there was a comparable distribution of the Permocar-boniferous coal deposits during the Permocar-boniferous Ice Age. These include the coal deposit in Antarctica. (4) That the unbalance in the glaciation of the Northern and Southern Hemispheres during all three of these Great Ice Ages follows logically on the basis of the lithospheric displacement theory. On the basis of these facts, I believe that we are fully justified in concluding that the lithosphere was displaced, as assumed. (5) The assumption that the lithosphere was displaced during the Great Ice Ages seems adequately to account for the migration of species, and I have suggested that this offers an excellent opportunity for some very interesting research looking to the chronological correlation between the migration of species, the Great Ice Ages, and the bridging of Bering Straits.

"Only the first portion of my work is recorded in the article published by the American Association for the Advancement of Science. I am in hopes to secure the publication of the remainder, which deals with the mechanics of the displacements, in a later issue. There is a very considerable evidence which supports the material of this first paper, as well as some definite evidence in favor of the mechanics of the displacement, as I have developed the theory."

William D. Coolidge of our Class has received honors for his work on the study of tungsten. We quote from a magazine clipping: "Tungsten, the hard metal used for filaments of electric lamps, automobile ignition contacts, in X-ray tubes and elsewhere, will find many additional uses in the future. Dr. William D. Coolidge, former vice president and director of research of the General Electric Company, said here [New York] recently. Dr. Coolidge, whose pioneer work in the G.E. Research Laboratory led in 1908 to the production of tungsten in ductile form practicable for such applications, spoke at special ceremonies where he was presented the first K. C. Li Medal and Award of Columbia University. The award, a gold medal and an honorarium of \$1,000 was established by K. C. Li, chairman of the board of the Wah Chang Corporation, and a recognized authority on tungsten."

We received a letter from William T. Dorrance, as follows: "Dear John: Was interested in your request for information as to 80 years, in the last Review. Have not quite reached the mark, but if all goes well will on July 30, 1953. Have passed one milestone, however, for last June Mrs. Dorrance and I celebrated our 50th wedding anniversary. It has never seemed to me possible that you could be 'our age.' You are the youngest looking and youngest acting 'octogenarian' I know of. I was glad to hear of the well-deserved recognition you received. I am enclosing a clipping on this same topic of age, which has some bearing on why we don't grow old. Missed seeing you in New York last winter but got no notice of the dinner. Alumni Day in June interfered with our

Golden Wedding." Bill sent along a clipping telling about Joseph H. Young, 88 years old, who, when retired as assistant to the president of Pennsylvania's Westinghouse Air Brake Company, indignantly refused to end his career. Within days of his retirement, he opened an office of his own as consultant to railway companies, and in a very short time was hired by Chicago's Poor and Company as sales assistant to the chairman of the company. The article goes on to say: "As salesman, Young constantly reminds himself with a placard on his desk: 'Youth is not a time of life. It's a state of mind.'"

Another classmate honored recently is Bradley Stoughton. A notice received from Lehigh University concerning his activities reads as follows: "Dr. Bradley Stoughton, professor emeritus of metallurgy, received a Department of the Army award at the Armed Forces Day parade and review in Taylor Stadium May 19. The presentation was made for service on the technical industrial intelligence committee of the Joint Chiefs of Staff during World War II. The parade and review, open to the public, climaxed Bethlehem's participation in the nationwide observance of Armed Forces Week."

It is gratifying to note that Dan and Mrs. Bates are making progress and it was a pleasure to receive a letter from him in which he expressed abiding interest in his classmates, and the best of good wishes for their welfare. His new address is Route 1, Wilmington, Del.

We are sorry to report the death of Herbert E. Walker, a member of the Class of 1896. From the Boston *Herald* of July 15 comes the following announcement concerning his passing: "Herbert E. Walker, 89, of Tremont Street, a school principal and educator here [Duxbury] for many years, died today. A native of Duxbury, Mr. Walker attended Harvard University and . . . Technology and began teaching at the age of 16 in Pembroke. He was for 13 years principal of the Partridge Academy here and was a leader in forming the first school superintendency district in Massachusetts, which included Duxbury, Marshfield and Scituate. Mr. Walker was trustee for 38 years of the Chandler Ford Fund for deaf children of Plymouth County, treasurer of the Unitarian Church for 50 years and president of the Duxbury Rural and Historical Society, Inc., for 39 years. He leaves a brother, Percy L. Walker of Duxbury."

Fred Damon is making his headquarters for the coming year at the Commander Hotel in Cambridge. — JOHN A. ROCKWELL, *Secretary*, 24 Garden Street, Cambridge, Mass. FREDERICK W. DAMON, *Assistant Secretary*, Hotel Commander, Cambridge 38, Mass.

#### • 1897 •

The observance of the 55th anniversary of the graduation of the Class of 1897 has now passed into history, and while very moderate in its scope, was nevertheless a truly very enjoyable occasion for all who participated. Doubtless each one of you has received the excellent account of the several events written by Harry Worcester and sent out by him in letter form. In

order that it may go on permanent record we have thought it advisable that it be printed in the class news columns of The Review. Harry's letter was as follows:

"June 9th proved the usual good weather for Technology Alumni Days, though very warm. The Class of '97 was given a reserved table right close to the speakers' table in the big tent so everyone could hear all the speeches. Harry Ballou, Bill Binly, John Collins, Luzerne Cowles, Jere and Mrs. Daniell, Edgar and Mrs. Hawkins, Walter Humphreys, Jack and Mrs. Isley, Ed Olin, Gilbert Pratt, John Taylor, George and Mrs. Wadleigh, and Harry and Mrs. Worcester occupied the table and listened to the very good speeches by Mr. Vogeler '37 and Jim Killian '26. In the evening, about the same men sat around the table at the big dinner at the Statler, and when the noise furnished by the young men (all not over 65) was over, we talked with each other like a lot of old women. Tuesday we had our own '97 luncheon at the Algonquin Club. It was a very nice party and everyone got a chance to talk to everyone else and they seemed to enjoy it greatly. Charlie Breed, Charles Currier, and Gus Lamb, who had not been able to get to Alumni Day, showed up at our luncheon. It was all very informal. Letters and messages were shown from the following men:

"Tom Weymouth wrote: 'It was my fond hope that I might be able to attend the luncheons in Boston on the 9th and 10th, but unfortunately it is necessary for me to be in New York on the 10th to keep an appointment of considerable importance to me personally, and I will be en route there on the 9th. George Wadleigh and his charming wife invited Mrs. Weymouth and me to drive to Boston with them for the reunion, but as our acceptance of this generous invitation would entail a detour of 800 or 900 miles to pick us up here at Bemis Point in Chautauqua County of western New York and transport us to Boston, I felt that it would generate a slightly severe strain on our old friendship to take him up on his offer, especially in view of his apology for the age of his jalopy (which, of course, I take with a grain of salt, as being merely a figure of speech). Seriously, Henry, I am deeply disappointed at my inability to be with you all next week, and am writing this message which I wish you would convey to those who are fortunate enough to be there, to say that I send you all my warmest greetings and the expression of a hope that the years ahead may bring the opportunity of seeing you and visiting with you, individually or collectively, several times before we must call it a day and begin the new adventure.'

"Charles (Judge) Dunn wired: 'Had hoped to attend but cannot make it. Discovery of Gas Leidy Township our County had filled June calendar with disputed boundary cases. Old friends become more dear as the years roll by. Congratulations and regards to all.'

"Proctor Dougherty wrote: 'Your cheerful invitation to attend the dying-off party of the Class of '97 almost convinced me that my duty was to attend as one of the mourners. But family complica-



tions and appointments have forced me to keep my tears in Washington for a dying administration instead. It seems only yesterday that I was writing a thesis with my friend Charles Eames, and now he has gone on after leaving a sum to good old M.I.T. It must have paid off to spin yarns for so many years. It seems only yesterday when I helped you lively crickets celebrate the 50th and now darned if the 55th is right on top of us. When I look at the class report of our share of the Alumni Fund, I think that our Class is anything but dead. So hats off to you fellows at the 55th. I wish I could see you all, John, Walter, Jack, Harry, and so on, my love to you all.

"Wilfred Bancroft wrote: 'Your good letter has given me an attack of galloping heart bowed down for it is not possible for me to get on to our reunion. The spirit is raring to go but also the flesh is weak. I have had to take it very easy this spring. I'll not admit that I am suffering from galloping senile decay but there have been times when I thought that 97 was my age and not my Class. You may be sure that I shall be with you in spirit and that I shall play over my memory record of our last reunion. With good wishes and affectionate regards to my classmates.'

"Irene du Pont, after calling us down for insinuating that his not coming to the meeting was caused by physical incapacitation, which he denied, said: 'Please remember me to all the boys. Tell them to take care of themselves so that when the 60th reunion comes around I will have a change of heart and want to be on hand.' Frank Shepard wrote: 'Thanks a lot for your note of the 27th. I had hoped I might be able to join you for the 55th. Best regards to you, to Harry Ballou, and others. My regrets.' Harry Sawtelle telephoned he had hoped to attend but a bad attack of arthritis kept him at home. Also we received a nice letter from Than Howard sending his best wishes and saying that if we could hold our next meeting at Niagara Falls, he would be present. After everyone was talked out we adjourned about four o'clock, promising to repeat the occasion next year if enough of us are still in circulation."

Mr. Worcester and the other members of the Executive Committee, Messrs. Humphreys and Ilsley, are to be congratulated on the very successful planning and carrying-out of their arrangements for our reunion observance.

William H. Gardiner, Course V, died June 21, 1952, at his home, 333 East 57th Street, New York City, aged 78 years. The New York *Herald-Tribune* lists him as a publicist and advocate of the importance of sea power in world affairs. In 1933 he became president of the Navy League, a group composed of private citizens who fought to bring the United States Navy up to parity with other world powers. In 1931 he strongly opposed the proposal of President Hoover for a "holiday" in naval construction. It was largely due to Mr. Gardiner's opposition that the "holiday" plan did not go through and the construction of 19 new cruisers was carried out. He resigned from the Navy League in 1935 but continued as watchdog of the fleet, and in World War II was a consult-

ant in global policy, both at the White House and in the State Department. After leaving the Institute Mr. Gardiner became a partner of Henry M. Doherty in engineering management and public utility financing. He retired from private business with the outbreak of World War I. From 1922 to 1923, he studied at the Naval War College at Newport, R.I., and was a member of the United States Naval Institute. He devoted many years of his life to the furtherance of the idea that America must have a Navy second to none.

The Class of '97 wishes to extend its congratulations to Irene du Pont, former head of the vast Du Pont industrial empire, on the occasion of the 150th anniversary of the founding of the company which took place in July. At the same time it wishes to extend its sincere sympathy in the death of his brother Lamot ('01), also a former head of the company, who died six days after the anniversary celebration. — JOHN A. COLLINS, JR., Secretary, 20 Quincy Street, Lawrence Mass.

## • 1898 •

Greetings to the Class of '98 for the new Review year. After visiting 10 countries of Europe in four months, the Secretary is home again. With George Cottle's help, we hope to show '98 some pictures from the trip. This could well be done at the 55th next June. Lester Gardner is chairman for the 55th and promises a repeat performance of the 50th. Not exactly the same, of course, in every respect, but similar with appropriate variations and new features. Roger Babson is co-operating and the two Georges. To those who attended the 50th, there is no further need for argument. To those who did not attend the 50th, come to the 55th and see.

Elliott Barker has sent us the following write-up of the '98 get-together last June: "The '98 class meeting, held at the Algonquin Club on Alumni Day, was the most successful in recent years both in numbers present and interest. The roll-call: Gardner, Blanchard, Lansingh, Dawes, Wesson, Babson, Harris, High, Barker, Perry, Edgerly, Treat, Thompson, Swasey, Robinson (guest from Class of 1916), and Russ. Lester Gardner reported plans for our 55th reunion next year, which in addition to the successful features of our 50th will include a trip to and afternoon tea at Babson's new 300-acre landscaped estate in Wellesley. Discussion covered many subjects such as the neutralization of gravity, traffic problems as outlined in two letters from Dave Fenner, and what is the secret of long life. Many letters and cards were read by the Assistant Secretary, most of them expressing regret for not coming in '52 but surely coming in '53. The success of our 50th reunion will be discussed by us and the other reunion classes for many years to come. Bob Allyn reported illness from which we hope he has now recovered. He would appreciate a letter from you. We are indebted to George Treat and George Cottle for extending to us the hospitality of the Algonquin Club, including refreshments. Many thanks to them both. The Alumni Banquet at the Hotel Statler was

attended by Gardner, Barker, Lansingh, Perry, Edgerly, Harris, Dawes, High, and Wesson." Thanks, Elliott, for your co-operation and thanks to members of '98 who have responded to letters from President Edgerly.

Through the good offices of Lester, we have the following concerning our distinguished classmate, Charlie Winslow, which appeared in the New York *Times* of May 13, 1952. Under the caption, "Yale Professor Honored by World Health Agency," with a picture of our classmate, a special message recites: "Geneva, May 12 — Dr. Charles-Edward Amory Winslow, Professor Emeritus of Public Health of Yale University, received the Leon Bernard Foundation Medal and prize of 1,000 Swiss francs (about \$230) at today's session of the World Health Assembly of the United Nations World Health Organization. The award is for 'an outstanding contribution to the progress of social medicine.' Professor Winslow was one of the initiators of the movement that ultimately produced the World Health Organization. With Prof. Leon Bernard, for whom the prize is named, he helped to organize the health section of the League of Nations in 1921. Professor Winslow's recent activities have been concentrated on demonstrating the economic value of hygiene and preventive medicine."

Arthur Keene writes: "The partnership of Keene and Simpson, architects, has been in existence since 1909, a continuous association for 43 years. (Previous record was Tietig and Lee, 40 years.) Am not as active as in past years, taking things more leisurely, placing the burden on younger associates. I have been honored with the conferring of a Fellowship in the American Institute of Architects. Buildings designed by our firm have received numerous medals of award for excellence of design and plan, given by the Kansas City Chapter of the American Institute of Architects."

Horace R. Thayer writes: "I have just received a copy of the *International Who's Who* and I am pleased to note the inclusion of my name: I thought that it might be well to publish it in the hope that it might possibly add to the prestige of '98. I myself am very proud of it although I cannot help feeling that it is an honor not entirely warranted. The listing is 'Prof. H. R. Thayer '98, Cleveland, Ohio' in the 1952 edition of the *World's Notables*, an international biographical dictionary issued by the Chancery House, New York City. Say hello to all the boys for me."

Robert Lacy writes: "Personal accomplishments are embarrassing and scarce; however, on May 30 I drove from Baltimore to Worcester — 362 miles, the longest ever. And the Patent Office recently gave me a patent for a marine structure, removable, to support a drilling platform in deep water. Will hope to see you in '53."

Dave Fenner writes from Washington: "In 1950, at the time of my retirement from the Mack Truck, I received citations from National Highway Users Conference, Automobile Manufacturers Association, Automotive Safety Foundation, Na-

tional Council of Private Motor Truck Owners, American Standards Association, and a couple of others. We now have a 'Citation Room' in our home at Falmouth, Mass., where I tried to 'retire' but fortunately was not given much time to give it a trial, as things began to hum down here and the Diamond T Motor Car Company, truck manufacturers in Chicago, offered me a job as their Washington representative. In June, 1951, I managed the 55th reunion of my class in New Haven and got elected president for the next five years for my efforts. We had only 27 members back but we had one hell of a good time and it was the 250th anniversary of the university. After World War I, we were trying to get America 'out of the mud.' Now our efforts are devoted to getting our cities 'out of the traffic muddle.' We may soon have to resort to the helicopter to deliver freight on the roof of our warehouses, bar passenger cars on business streets, forbid parking next to the curb and reserve this lane for transit-type buses. And what we now class as traffic 'accidents' may soon be classed careless or willful violations of existing regulations with revocation of driver and vehicle licenses. Sounds tough? Periodic re-examination of drivers is on the way."

Our distinguished classmate, Roger Babson, not content with running three colleges, a business service, and a gravity institute, is now also taking an interest in the traffic problem. We have a voluminous file concerning this *démarche*, too voluminous for class notes. Perhaps Lester can arrange at the 55th for an open forum or a town meeting, in which Roger and Dave can debate this important subject.

We are saddened by having to report the passing recently of the following classmates: George R. Anthony, Frank F. Colcord, George W. Treat, and Fred H. Twombly. We are endeavoring to secure data concerning these classmates for inclusion in class notes and would appreciate co-operation of classmates.

The Alumni Fund Office reports that for the recent Fund year, 1951-1952, the contributions of the Class amounted to \$2,765. This is by far the largest sum that the Class has ever contributed in any Fund year except, of course, the Golden Anniversary Year. Remember the 55th. — EDWARD S. CHAPIN, *Secretary*, 463 Commercial Street, Boston 13, Mass. ELLIOTT R. BARKER, *Assistant Secretary*, 20 Lombard Road, Arlington, Mass.

## • 1899 •

Mary Kellogg Sherrill, wife of Professor Miles S. Sherrill, V, died on June 7 after a long illness. Mrs. Sherrill was noted for the versatility of her talents. She was a violinist, a writer, a playwright, producer, performer, and dancer. She was a graduate of Radcliffe College and took post-graduate work in New York and Paris. Funeral services at the Church of the New Jerusalem on June 9, were attended by Hervey Skinner and your Secretary.

The Class Day luncheon on June 9 was attended by Ellery, Skinner, Charles Schmitt, Witherell, and Rickards, and the same group, with the exception of Witherell, gathered around a table at the

Alumni Dinner. Miles Sherrill, usually present on such occasions, was absent for reasons given above.

Frank E. Hermanns, formerly of Bronxville, N.Y., is now located at East Orleans, Mass., Box 194.

Frederick W. Snow, III, died on August 23 in a Lynn hospital after an illness of several weeks according to a clipping received from his son, Lambert. Until recently he made his home in Washington, D.C. Fred was associated with A. E. Wheeler of New York City for more than 30 years before World War II. During the war, he served as a consulting engineer on the War Production Board in Washington. As a consulting engineer he traveled extensively in Europe and Africa. He was a member of several engineering organizations including the American Society of Metallurgical Engineers.

According to the Boston *Globe*, George F. Andrews, V, of Greenfield, Mass., died on June 19 at the age of 84. George was a noted sociologist and chemist. The *Globe* said of him: "His reputation in academic circles was based on two specialized though unrelated studies: Islamic minorities and aluminum alloys. He was a fellow of the Royal Geographical Society, a member of the Rhode Island Chemical Society, the International Law Association and the Royal Society of Arts." — BURT R. RICKARDS, *Secretary*, 381 State Street, Albany, N.Y. MILES S. RICHMOND, *Assistant Secretary*, 201 Devonshire Street, Boston, Mass.

## • 1900 •

Our 52d anniversary was celebrated according to schedule. On Monday, June 9, 10 of the faithful assembled at the Institute to celebrate Alumni Day. They were Brock, Comey, Fitch, Fred and Mrs. Lawley, Newhall, Charlie and Mrs. Smith, Ziegler, and the Secretary. After a social hour or so, we found table room for all at the luncheon where we continued our sociality until time for the more formal program. At the banquet in the evening only five were present at the main assembly: Fitch, Newhall, Lawley, Ziegler, and the Secretary. Mrs. Lawley represented the Class at the Ladies' Banquet. Those who come always enjoy these meetings, but we do wish that more of the Class would come.

The next day we proceeded to Cotuit for the reunion at the Pines. The party was very limited and select! In all we had 15 present: George Atwood and wife, Bob Blair and wife, Louis Crowell and daughters Geta and Lydia, Stan Fitch, Walter Kattelle and wife, Fred Lawley and wife, Charlie Newhall, and the Secretary and his wife. What we lacked in numbers we made up in friendship and sociability. Everyone said that it was the best reunion yet, even surpassing that of last year. There was no program. We spent the entire time in renewing old friendships and getting better acquainted. The days were largely spent in groups on the lawn and at the shuffleboard. In the evening we met around the open fire at the Evergreen swapping stories and remembering old classmates and events of our undergraduate days. The time went only too quickly and we

parted on Thursday morning, all agreeing that we should have another reunion in 1953.

We have received word of the death of Benjamin R. Johnson who was with us in our sophomore year. His recent address was in New York City. He died on May 9. Also, on May 14, George W. Knight passed away at the age of 74. He had been living in Philadelphia. He was with us the entire four years and graduated from Course V. After graduation he spent a number of years in Cuba and Puerto Rico as chief chemist and superintendent of various sugar refineries. In 1908 he started a 40-year career as a government chemist, first in the Department of Agriculture in Washington. In 1910 he transferred to the customs laboratory in New York, becoming chief chemist in 1928. He went to Philadelphia as chief chemist of the U.S. Customs Laboratory in 1936, where he remained until his retirement in 1948. He is survived by his wife, the former Mary Byrne, and a sister, Mrs. Grace Knight Brady of Boston.

Joseph P. Draper died on August 21. He suffered a stroke last spring while at Palm Beach. He was later brought north to his summer home in Scituate but never recovered from the effects of the stroke. Joe graduated with us from Course IX. He then went to Harvard Law School from which he graduated in 1903 and was admitted to the bar. He practiced law in Boston and Canton until 1922 when he and his brothers organized Draper and Company, of which he was treasurer. In 1935, he resigned and formed the Draper Top Company of which he was president and chairman of the board at the time of his death. He served for several years as associate judge of the Stoughton District Court. During World War II, he was chairman of the Dedham Draft Board. He was a former president of the Canton Historical Society and former treasurer of the trustees of the Canton Library Board. He leaves his wife, a son, two daughters, and two brothers. At his funeral in Canton (which was attended by Fred Lawley and your Secretary), the eulogy was delivered by Ed Davis '01 who graduated from M.I.T. with us and who was a lifelong intimate friend of Joe. He spoke as follows:

"We, whose lives have so long been enriched and beautified by the rare and beneficent qualities of our beloved Joseph Porter Draper, cannot now look upon his departure as calamity or huge loss. It is rather an inevitable and foreseen end of a term that has been generously long and supremely fine in the qualities which have glorified both his life and ours. This is a moment not for distress but for grateful acknowledgment. Not for appraisal, for each year of his life became a self-appraisal which won our admiration and our love. Not for eulogy, for no man that I know lived more highly in the daily esteem of those who knew him. Nor does it call for a weighing of great thoughts of life and death, for in these matters, too, I know none who more thoughtfully and confidently resolved those questions for himself, to a satisfaction greater than anyone else could give him. We are here today to meet in simple thankfulness, as deep as our hearts, that he has been, and



for all that he has been to himself and to us and to the hugely wider world for which we are representative.

"Over 50 years ago, a wise teacher told a group, in which were he and I, that a challenging exercise in rhetoric and in thought would be found by one who should try to write out in words the thoughts he would wish spoken at his own bier. We used to talk of that together in those old days, and we agreed that it would be long before we could even begin to satisfy ourselves in such an attempt. As I look back now, I wonder if our wise teacher did not know that, in posing this problem, he was really implanting a thought that would be a guide through life—less a monitor than an inspiration. Certainly the life of Joseph Porter Draper became in itself the answer to that challenge.

"Simple thankfulness, I have said, is in our hearts today—crowded as they are with memories and gratitude and admiration, and a love so full that it chokes our speech. Even with wet eyes, we can feel exaltation as we blend our spirit with his that we knew so well. And I think, were he to speak to us now, he too would want to give utterance to exaltation—that life has been full and rich and wonderful in its beauties and friendships, and inexpressibly lovely in his relations with you, here today. That was, we all know, the daily message of his living. It would not be other now.

"The greatest gift of life is love: It is Joseph Porter Draper who has given us the experience of its profound realization. As long as we live, so shall this be."—ELBERT G. ALLEN, *Secretary*, 11 Richfield Road, West Newton 65, Mass.

## • 1901 •

It is to be regretted that our year has to begin with sad news. Doubtless you all know by this time that our good friend and classmate Lammot du Pont died in the New London Hospital on July 24. He had not been well for some time, but his death came suddenly as a shock to everyone. He was born in Wilmington October 12, 1880, and was named for this father, Lammot du Pont, an authority on industrial explosives. He received his degree in Civil Engineering from M.I.T. in 1901. He began work as a draftsman for the Pencoyd Iron Works but joined the family business in 1902 and rose to general superintendent of the black powder division in 1913. The company was reorganized in 1915. He was elected a director and member of the executive committee and the following year was made a vice-president, which office he held until 1926 when he succeeded his brother Irene as president. He held this office until 1940 when he followed his brother Pierre as chairman of the board of directors. During his term as president, expenditures for the Du Pont research laboratories were increased almost sevenfold.

This expansion, coming during general business depression, sent the company far ahead among industrial organizations seeking new scientific knowledge. One of the principal reasons for this expansion was Lammot's belief in research. He was responsible for the beginning of the com-

pany's program of fundamental research, directed not at developing products so much as exploring broad avenues of chemistry previously confined to universities and other endowed laboratories. It was said of him as president that he was familiar with every one of the company's products. New developments, such as synthetic bristles for toothbrushes, he tried out himself, and in these personal tests he was the Du Pont research chemists' most conscientious critic. Lammot refused to take any personal credit for the records of his administration. He said they were due to the efficiency of the organization and to policies established chiefly by his brother, Pierre. He insisted that, "If there weren't a lot of men in the Du Pont Company who know more than I know, the company wouldn't last long."

He retired as chairman of the board January 19, 1948. Lammot became a director of General Motors in 1918, serving until 1946, was chairman of the board of directors from 1929 to 1937, and was, for a time, a member of its financial and policy committees. He was prominent in the Manufacturing Chemists' Association and served as president. He also belonged to the National Association of Manufacturers, the U. S. Chamber of Commerce, and other national bodies representing industry. He was a director of the Wilmington Trust Company and in 1934 was elected a life member of the Corporation of M.I.T. He owned an outstanding collection of Indian arrowheads collected by his father. He played tennis, some golf, and was a yachtsman; but his favorite hobby was sawing and chopping wood.

As soon as he learned of Lammot's passing, President Al Higgins sent the following day letter to Mrs. Du Pont: "Speaking for Lammot's classmates, we send you expression of our deepest feelings in this hour of anguish. We all look back to a year ago at our 50th reunion to his genial companionship, to his personal generosity to classmates, and to his contributions to the welfare of man, as a continuing example for each of us to follow. As an expression of our esteem, the Class of 1901 will present a memorial to the Delaware Hospital in which Lammot had such a deep interest." In reply, Al received the following note from Mrs. Du Pont. "Dear Mr. Higgins: I appreciate your tribute from the Class of 1901. It has warmed my heart and added to the knowledge that it was a privilege to have known Lammot intimately for so many years. I am deeply touched that the Class will present a memorial to the Delaware Hospital in memory of Lammot. I am sure he would have said he had done nothing to deserve it but would have been very pleased. Will you please give the Class of 1901 my gratitude for their tribute to Lammot. Yours sincerely (signed) Margaret F. du Pont." So we lose one of our best known, most highly honored, and beloved classmates. He will be remembered by us all in many ways but most of all, I think, for his modesty and democratic good fellowship. We found that one of Lammot's chief interests was in the Delaware Hospital. After consultation, the officers of the Class decided to present a memorial to the hospital in memory of

Lammot. We found by communicating with the director that other gifts had been received for the same purpose. The trustees are considering the establishment of a Memorial Fund in his memory. If this is done we shall contribute \$100 to this fund in the name of the Class and are assured that we shall receive suitable recognition.

I also have to report with regret the death of Farnum Dorsey on June 25 in New Jersey. The following is taken from the New York *Herald-Tribune*: "Linden, N.J., June 27: A funeral service was held here today for Farnum F. Dorsey, 73, of South Orange, N.J., former trademark counsel for the Socony-Vacuum Oil Co., Inc. Mr. Dorsey died Wednesday at his home. He was born in Jamaica Plain, Mass., and studied at M.I.T. and the Law School of Boston University. He obtained his law degree in 1903 and practiced in Boston, New York and Rochester until 1929, when he joined the legal staff of the Socony-Vacuum Oil Co. He retired in 1945. He held the national championship for decked canoes in 1901 and for open canoes in 1909 and 1913. He is survived by his wife, a son, two daughters and a brother." He had been an invalid for some little time and therefore was not able to attend our 50th reunion.

I mentioned in the July notes that Ward Coburn was in semiretirement in Birdsboro, Pa. I have a clipping which tells of a testimonial given to him in New Jersey by people who were associated with him. He was president of the Richard Ore Company County and municipal officials joined executives and miners in this testimonial and presented him with suitable gifts.

I have a few class letters from last spring and one or two others with news but will save them for later issues.—THEODORE H. TAFT, *Secretary*, East Jaffrey, N. H. WILLARD W. DOW, *Assistant Secretary*, 287 Oakland Street, Wellesley Hills 82, Mass.

## • 1902 •

Our 50th reunion really started Friday morning, June 6, in the corner of Rockwell Cage where we had been told to get our caps and gowns. Your Secretary was among the first to arrive and Kenneth Grant was first to be met. Then the boys began to gather rapidly, made themselves known to one another, and prepared to take their proper place in the procession. Thanks to Bob Williams and Harold Everett, the uninitiated among us got properly garbed and were soon on the platform to become Exhibit A, as Dan Patch puts it.

Following the commencement exercises, we and our ladies were the guests of President Killian at a delicious luncheon served in the Du Pont Court. Some of the men temporarily lost their wives, but all were happily united and did justice to the occasion and the food.

After luncheon, as per schedule worked out by Lew Moore, the migration to Coonamessett started and all arrived there safely. There was, however, a slight bit of confusion at this stage. Our maitre d'hôtel, Bill Bassett, had assigned each to a room and roommate, but due to delays

in the mail the list had not been received ahead of our arrival. Bill, however, soon came and straightened matters out. At first there was some fear that the necessity of being quartered in three separated buildings might be a handicap, but fair weather prevailed and all was well.

Our first gathering was at the inn for dinner where we were seated by ourselves and had a chance to really get to know one another. After the dinner a formal class meeting was held at which the resignation of Les Millar as class president was read. Les has been very much incapacitated by sickness and had found himself unable to attend the reunion, and Lew Moore, Vice-president, presided over the meeting. Election of officers for the next five years was then taken up. Dan Patch was elected president; Lew Moore and Bill Kellogg, vice-presidents; Robinson, treasurer; Philbrick, secretary; and Fred Hunter as class representative on the Alumni Council.

After this short meeting, all assembled up at the ranch house where Bill Kellogg showed kodachromes taken in a recent visit to Spain. They were most interesting and Bill's running talk gave them much more value. Spain seems to be off the beaten path of tourists and not well known to most of us. Late in the evening we went to our beds listening to the cries of whippoorwills and awoke to the whistle of bob-whites.

Saturday was another sunny day and much of the time was spent up at the ranch house which was accepted as headquarters. Here Hunter had an exhibit of *Techniques*, Senior Portfolios, and photos of previous reunions. It took considerable puzzling to identify the younger faces but eventually all were placed. While some were inside at the exhibit others were sunning themselves in chairs placed out on the grass in front. Here Dan Patch had set up stakes for horseshoe pitching but, as he informed us, had thoughtfully set them at the distance officially used by women. He had done wisely. Philbrick, Steve Gardner, Bert Haskell, and Ed Nelson all took a hand and wore out the grass around the stakes. Later three members of the old class ball team—Farley Gannett, catcher; Dan Patch, shortstop; and Steve Gardner, right fielder—had a chance to warm up as Dan had brought down a baseball, his old fielder's glove, and his son's catcher's mitt. There was a little stiffness noticeable at the start but the players soon were back to their old form.

After the noonday luncheon, we gathered across the drive from the inn and posed for a group picture which is published in this number of *The Review*. There was no formal program for the afternoon and each enjoyed himself as choice directed. The golfers Charlie Mixer, Kellogg, Gardner, and Galaher played a foursome, with Galaher leading.

The evening event was the formal class dinner at which Kellogg presided as toastmaster. He had digested the replies to the class questionnaires and gave a most interesting summary of the vital statistics of the Class which will appear in a later issue of the notes. He called attention to the various men and their achievements

in their professional lines and then called upon the class officers to report on their work, for remarks from the individual classmates. Letters or telegrams from many absent members and from the Class of 1927, celebrating its 25th at Oyster Harbors Club, were read by the Secretary. Bill had plenty of good stories to illustrate each point in his talk or introductions, and the excellent champagne cider provided by Jason Mixer from his farm in Hardwick added to the enjoyment of the evening.

Fair weather still prevailed on Sunday, and after breakfast groups formed on the piazza of the inn, at the ranch house, and elsewhere to enjoy one another's company as they saw fit. Farley Gannett, Steve Gardner, Kellogg, and Howe played golf, with Kellogg in the lead. We were drawn together again at dinnertime but after dinner again broke into groups, some for auto rides around the surrounding regions, such as Oysters Harbor, Hyannis, and so on, others to continue their morning sessions. In the evening all gathered at the ranch house to see projections of kodachromes taken by Marvin on recent trips to Alaska and through the National Parks of the West. Saylor presented some fine pictures of flowers and trees and Kellogg some of the eastern shore of Maryland. On Monday morning we left Coonamesset to return, for the most part, to Cambridge to attend the Alumni Day luncheon at noon and the banquet at the Statler in the evening.

The following classmates were at the Coonamesset reunion, either for full or part time: Alfred W. Allyn, Bassett, Collier, Everett, Fisher, Galaher, Gannett, Charles F. Gardner, Stephen A. Gardner, Grant, Greeley, Hall, Hammond, Haskell, James C. Howe, Hunter, Kellogg, Lowe, McKechnie, Manning, Marvin, Charles and Jason Mixer, Moore, Edwin E. Nelson, Patch, Philbrick, Proctor, Robinson, Reynolds, Saylor, Frank H. Smith, Taylor, Vatter, and Wales.

At the Alumni Day luncheon the Class had a table near the head table, at which Kellogg and Patch represented '02. As is customary, Kellogg representing a class with 50 years of experience shared it in a short talk with the graduating class of 1952. The luncheon was a very happy occasion and will be long remembered by those present. The July number of *The Review* gives a picture of the '02 table and a roster of those present, but incorrectly marks it as the Commencement Day affair.

After the luncheon, the Class broke up but gathered again in the evening at the Statler for the final event, the Alumni Banquet, with 20 present. Red Proctor and Dan Patch were honored with seats at the head table while the rest of us had excellent positions nearby on the floor. During the evening Proctor, as chairman of the 50-year gift committee, presented Dr. Compton with a dummy check for \$170,009.13. Red explained that our reunion, and hence our drive for a class gift, came so soon after the general Development Drive that all the proper authorities, Drs. Compton and Killian '26 and Marshal Dalton '15, the chairman of the Development Drive, agreed that subscriptions to it

from members of the Class should be included as part of our reunion gift.

Those who saw the reunion out "with a stein on the table" were Allyn, Bassett, Bourneuf, Collier, Fisher, Gannett, Katzenmeier, Grant, Hunter, Kellogg, Marvin, Moore, Nelson, Patch, Philbrick, Proctor, Saylor, Smith, Taylor, and Vatter. —BURTON G. PHILBRICK, *Secretary*, 246 Stuart Street, Boston 16, Mass.

## • 1903 •

Six of the Class attended one or more events at the Institute on Alumni Day: Carlton Green, Clarence Joyce, Robert King, John Nolan, and the Secretaries. We held an informal class meeting at noon and discussed the tentative plans for our 50th reunion, which the Secretary had prepared. As a whole they were approved, and details of the program will be sent out soon. Meanwhile, keep June 12 to 15, 1953, clear of all other engagements. We hope for the largest attendance ever, and don't forget to write us your reaction and suggestions in regard to the program for the week end.

Myron Clark, always busy, has been named director of the Mutual Security Agency's Production and Technical Assistance Division. A brief record of Clark's life to date, and an outline of the work of the Mutual Security Agency was given in the Concord, Mass., *Weekly Journal*, and finishes with: "Clark's long and distinguished record in the labor-management field makes him eminently qualified to carry on and expand this most important work which has become one of the free world's major weapons against communism." The Mutual Security Agency press release announced his appointment and further outlined the program. Andry A. Potter, Dean of Engineering at Purdue, was reappointed for a full six-year term on the National Science Board of the National Science Foundation, on May 10, 1952.

In the Boston *Traveler* of July 31, there was an interesting article about Mrs. Arthur A. Shurcliff, with a picture of her ringing hand bells. We quote in part: "Possible mention of her name may ring a bell in your mind that 'Oh that's the lady that rings bells.' And so it is. But it's not quite as simple as all that. She's a person capable of superimposing all manner of variations on your life. If you don't wind up ringing bells, she'll probably have you tossing out all the furniture in favor of whacking together your own creations. Failing that you may find yourself (as one Ipswich citizen recently did) clapped into stocks on the local green. Today she is the first American woman and the second woman ever to have been granted membership in the British Society of Bell Ringers; is also the founder and leader of the renowned Beacon Hill Bell Ringers. As to furniture and Mrs. Shurcliff, in 1899 she enrolled as the only girl in the class at Massachusetts Institute of Technology, studying carpentry; later teaching the subject at the Ellis Memorial Club in Boston, as well as to those who had planned to spend the summer relaxing in Ipswich. Meanwhile, she has amassed a remarkable collection of an-



tique tools and, not wishing to let 'em wilt on the wall, employed them for a time in her own business, 'The Pegleggers,' turning out reproductions of early American pine pieces. Shipbuilding tools, she has too. Ipswich Day of course, will find Mrs. Shurcliff heading a bell ringing group on the green. So be warned, as anyone who has witnessed her Christmas bell ringing on Beacon Hill can vouch, wherever she rings a bell, invariably bells ring in others' minds that maybe they should ring bells too." We are rather proud to have Mrs. Shurcliff as a member of '03.

Brief cards from Gould spending part of the summer in Hermosa Beach and other California places; Comer moving from Salem, Mass., to York, Maine; Frank Reed returning to his Grove City, Pa., summer home; and Lounsbury coming back to Lake Nebagamon, Wis., also for the summer. — FREDERIC A. EUSTIS, *Secretary*, 131 State Street, Boston, Mass. JAMES A. CUSHMAN, *Assistant Secretary*, Box 103, South Wellfleet, Mass.

### • 1904 •

Alumni Day is ancient history, but for the record it should be stated that the small '04 group had a pleasant time both at the luncheon and the banquet. Those present at one or both were Dwight Fellows, Carle Hayward, Everett Hiller, Currier Lang, Mrs. Stanley McCormick (Katherine Dexter), Howard Moore, Gus Munster, Ed Parker, Gene Russell, and Wilbur Wilson. It was pleasant to have Katherine McCormick brave the predominantly male gathering and join us at our table at the banquet. We do not often have one of our coeds present.

Several clippings have accumulated during the summer, as well as two letters from Henry Stevens with several enclosures. Some of the items in Steve's letters are as follows: "During the past year I have been somewhat more active than during the previous year. My dogs bother but I can ride in an auto with the best of them. I have been to The Meadows in Framingham for lunch several times, either with old cronies or Gus Munster, Ed Parker, and Dwight Fellows. These occasions are long remembered. I have had numerous and sundry visitors, old pals, masonic friends, and classmates. George Curtis has been down from Pittsfield, Gus Munster, Ed Parker, and Harry Kendall have been here several times, and what an exhibition of tongue wagging on each occasion. I attended the Worshipful Masters Association meeting at the Sheraton. It was my first appearance at a gathering of any size for six years. I may be able to appear again somewhere in the fall. Whenever The Review arrives, the first order of business is to read the '04 notes and I have greatly enjoyed them. The July number was especially good. I have made further progress on my autobiography. To the place and date of birth I have now added the fact that the day on which I made my appearance was the hottest August 30 ever recorded by the weather bureau in Boston. These two important events on that date have received relatively little attention. The town of Gardner erected a fine new school build-

ing just in time for me to prepare for Tech. Having accomplished its main purpose, it has now been torn down. I got my grammar school diploma in the old Revere Town Hall which was burned down a few days later."

Steve enclosed several letters he had received — first from Tammy Rockwood who writes that he has retired from his post retirement job with Ganteaume and McMullen and is now in the leisure class again. He planned to spend the summer in Chatham and go south for the winter. Expects to polish up his golf some. He reports seeing the Carty twins, one of whom is still with Stone and Webster and the other has retired from a railroad job. Second, a letter from George Curtis who is apparently enjoying his retirement from the Massachusetts Highway Department. He speaks of seeing a parade of old time automobiles which suggested the following reminiscence: "The old Massachusetts Highway Commission had a 1909 model of the Stanley Steamer which was assigned to me in 1911. Don't know whatever became of it after it was transferred to the Greenfield office. It sure could travel but what a disagreeable job to replace a fusible plug which would blow out on a steep hill if the water got so low as to expose the plug which was located at the front end of the boiler." A third letter sent by Steve was from Dwight Fellows who was loafing at Enfield, N.H., trying to get rid of a combination of sacroiliac trouble, sciatica, and arthritis. Dwight was suffering considerably on Alumni Day but tried hard to enter into the festivities. We hope the hot weather this summer has baked out his aches and pains. A clipping in Steve's letter states that Harry Kendall has bought out his brother's interest in the C. B. Kendall Company, Gardner's oldest mercantile establishment, and his son Chester will be associated with him.

*Forbes Magazine* last May published a paper on the Scoville Manufacturing Company of Waterbury, Conn., of which our classmate Leavenworth Sperry is president. The company was founded 150 years ago by Sperry's ancestors and is a leader in the brass industry today. It has always been ably managed and prosperous, which speaks well for a long line of Sperrys and Scovilles. The Lincoln County (Maine) *News* notes that one of our classmates, Leonard O. Hopkins, a native of Nobleboro, Maine, has attained distinction as chief engineer of the Nashville, Tenn., Bridge Company. He has designed many improvements in bridge construction, notably the Hopkins Trunion Bascule Bridge. Another bridge man, Cy Howes, has retired after serving over 30 years as bridge engineer for the Texas and Pacific Railroad. Cy served overseas in World War I with the Army Engineers. Bob Sosman is still active in the ceramic field and has been made an honorary member of the American Ceramic Society.

The summer has been severe on '04 men and we regret to report that four have passed away: Nathaniel Potter, II, of Rochester, N.Y., on May 4; Sidney Ward, III, of Portland, Ore., on June 6; R. E. Lee Taylor, IV, of Baltimore, Md., on

June 23; and Wilbur T. Wilson, I, of New York City on August 9. Potter prepared at Andover and came to M.I.T. after graduating from the Sheffield Scientific School at Yale. His early professional work was with the Baldwin Locomotive Works. He served in England and France in World War I with one of the U. S. Army's first tank units and became a captain. He was active in development of early aviation in the Rochester area and in the Rochester Defense Contingent. He is survived by his wife, a son Nathaniel, Jr., of Hawaii, and by a grandson. Ward was a native of England and came to M.I.T. in 1902 after graduating from Northwestern University. After graduation, he entered the employ of the Western Electric Company and continued with then until his retirement in 1945. He is survived by his daughter, Mrs. Jean Ward Meek of Portland, Ore. Taylor was born in Norfolk, Va., and was a Phi Beta Kappa graduate of the University of Virginia before coming to M.I.T. The architectural firm of Taylor and Fisher designed a number of important buildings in the Baltimore and Richmond area and is highly thought of. Taylor was active in Baltimore civic affairs and served for 10 years as president of the Baltimore Symphony Orchestra. He is survived by his wife and two sons, R. E. Lee Taylor, Jr., and Stuart S. Taylor, both of whom are associated with the Philadelphia *Bulletin*. Wilson was present at the Alumni Day affairs and seemed to be in perfect health and spirits so the news of his death was a great shock. He came to M.I.T. from the Woburn, Mass., High School and did postgraduate work at Columbia University. He had lived 37 years in New York City and his professional work was principally with aqueducts. He was a devoted member of the Episcopal Church and was a member of the Adventurers Club and Explorers Club. Mrs. Wilson died in 1938.

Just as these notes were ready for the Review office, Everett Hiller appeared on one of his occasional trips from Cape Cod. He is looking well and keeping busy. He submitted in writing the following statement which will interest many of you: "Had a very pleasant cruise with Karl Peiler, the 'pun-gent' of Course VI, on his beautiful 42-foot motor sailer. He is hale and hearty and very busy as vice-president of the Empire Manufacturing Company of Hartford and in the work of the Packaging Institute and other organizations. Among other things he is president of the Dauntless Club of Essex, Conn." That "Dauntless Club" business sounds intriguing. Perhaps Karl will give us some stories of adventure at our 50th. — EUGENE H. RUSSELL, JR., 82 Devonshire Street, Boston, Mass. CARLE R. HAYWARD, Room 35-304, M.I.T., Cambridge, Mass.

### • 1905 •

We had an excellent attendance at both the noon luncheon and the annual banquet in June. At the luncheon were present Mr. and Mrs. Shapira, Mr. and Mrs. Fisher, Mr. and Mrs. Files, Mr. and Mrs. Babcock, Chesterman, Charlesworth, Buff, Tower, Marcy, Kenway,

Lewis, McLean, Damon, Joslin, and, of course, Mr. and Mrs. Secretary. Seen in the lobby were Mr. and Mrs. Barlow. Al Gilbert had registered but was not visible, as far as we know. Attending the banquet were Shapira, Babcock, Chesterman, Charlesworth, McLean, Joslin, and myself. There is this deduction your Secretary would make from this listing. As you know, the regular yearly reunion on Cape Cod was "passed" this year, partly because of the small percentage of the Class attending, partly to see whether there might be a conflict between Alumni Day and our away-from-Cambridge reunion.

The deduction is that there is no conflict. A very small percentage of the confirmed "reunioners" attended Alumni Day, and only a few of those attending the Alumni Day activities frequent the away-from-Cambridge reunion. Therefore, unless there is considerable agitation to the contrary, there will be the chummy reunion of the regulars at some Cape Cod point in June, 1953, at a time not in conflict with Alumni Day. Also, there will be a class cocktail party preceding the Alumni Day. Failure to provide the latter means the loss of my job according to a very important member of the Class, an ex-president of the Alumni Association.

Incidentally, Governor Fine of Pennsylvania has appointed Frank Chesterman chairman of a committee of five (a little Hoover committee) to make a survey of all Pennsylvania state departments. I ran across Chet Shaw, VI, early in August, just as he was about to leave to accept a two month assignment with the Turkish State Railways Commission. Since his arrival, Chet has written that with seven other engineers, employees of an industrial and management engineering company of Boston, he is making a study of the conditions now existing in Turkey with respect to the office and clerical personnel and organization, procedures, and practices of the executive and operating departments of the Turkish Railways Administration with headquarters at Ankara. He adds: "One needs to be here only a short time to feel the importance of the work that our government is doing here for these people, the leaders of whom, at least, have turned to the West." Chet offers to tell of his observations there at a winter class meeting, and this will be arranged, if possible.

Partly because P. G. Hill, II, has been such a good correspondent, I drove from my summer place at Lake Winnepesaukee to his farm at South Chatham in August, found the place apparently closed, did a lot of prowling around, left a note expressing my regrets. Shortly after I had a note from Percy saying that I should have made a lot of noise, as he and Mrs. Hill were within, having their afternoon siesta. They have been having fun rehabilitating an old broken-down farmhouse. The farm consists of 100 acres "60 up the mountain, 40 down." He had built into a garage the old schoolhouse where his mother taught 75 years ago, rebuilt cellar stairs practically consumed by porcupines during the period of disuse, cleared the undergrowth for a kitchen garden, "now busy with government men cruising my timber, searching deeds, and establishing

boundary lines, and so on." Probably by now the Hills have returned to their New Jersey home for a rest.

Have a letter from Frank D. Webster, II, from Lethbridge, Alberta, from which point he annually makes his trip checking up on mustard seed. He predicted a very heavy harvest of mustard seed, on the distribution of which he has pretty much a monopoly. His travelogue is so interesting that I quote: "I often wonder if you ever received my letter from Buenos Aires last October where I met J. H. Flynn and had quite a nice chat with him but I missed the M.I.T. meeting by two days. We left on the fifth of September, 1951, on the *Del Norte* from New Orleans and crossed the equator with proper ceremonies, Rio, Santos, São Paulo, Montevideo, Buenos Aires, across the Pampas to the Chilean Lakes, Santiago, Valparaiso, Lima, Guayaquil, Panama Canal, Charleston, and home after a 14-week trip. I had an operation on June 7 for hernia and appendix and now am better than ever except I am no youngster any more, but I am able to enjoy life as usual. Before I return to Coral Gables I will take a boat trip over to Hawaii. Gladys is enjoying herself in the Smokies and will return with her daughter to go back to school on September 3. I would like to make Baia but I am too old for that. We are trying to get reservations on the *Caronia* next May 5, 1953, to see the Coronation as well as the tour which will stop at the Madeira Islands, Portugal, Oslo, Edinburgh, and our boat is our hotel at Southampton and will return to U.S.A. about June 12. I notice that 1955 is not far off and I hope I will be around to enjoy the reunion on two feet and not in a wheel chair. I note that you say they will want to get a donation from me, but I have made my will out to cover a nice donation to the Class. Anything can happen before 1955, but I expect to be around. I received a nice write-up in the *Guideposts* magazine and I enclose a copy. It was nice of them to do it and you should subscribe to it as it is a wonderful, inspiring magazine. If you are troubled you will be surprised at the results if you will have faith in prayer, but one must use common sense and really mean it. If they have a reunion in June, 1953, and I have returned from Europe I will make an effort to attend."

The September issue of *Guideposts* shows a very good likeness of Frank and again I quote: "How can a man find a new career at 60? Frank D. Webster of Coral Gables, Florida, faced this problem after a heart attack when doctors told him he could not continue the strain of being a warehouse executive. To ease his worries over health and finance, Webster's wife read him passages from the New Testament. One day as Mrs. Webster read: 'If you have faith as a grain of mustard seed . . . an idea hit him that was to grow to amazing proportions. After thoroughly analyzing the mustard seed business, Webster bought a carload of these tiny grains which symbolize faith. This was the first step that led to his becoming America's top broker in mustard seeds with the title, Mr. Mustard Seed. Not only does Webster have a profitable busi-

ness today, but the symbol of his restored activity is always before him." Frank will best be remembered as a member of our field day track team and of the varsity basketball team. Incidentally, while thinking of the present program of athletics at M.I.T., I well remember making a trip from Boylston Street (as manager of the basketball team) down to Major Briggs' office on High Street to get money to buy a new basketball, as our only ball had been "busted" when Dez Schonthal accidentally sat on it when practicing in the old freight shed on Exeter Street. Remember it?

There are two deaths to report. Wesley C. Gilman, II, died at his home in North Abington, Mass., on November 9, 1951, after a long illness. Gilly was for most of his business life manager of the United Soda Fountain Company of Boston, and on retirement served as president of the North Abington Co-operative Bank. He had held the highest office in the AF and AM, the Abington Council R and SM, and was a member of the Commandery and Aleppo Temple Shrine. Besides his wife, he is survived by a son, Lieutenant Colonel Turner W. Gilman '34, U.S.A., Signal Corps, Washington, D.C., and George D. Gilman of North Abington. Mrs. Gilman sent me a picture of part of the old mechanical engineering bunch, playing "duck-on-the-rock" in a field in front of Engineering A (where the Copley Plaza Hotel now stands). In the group were Gilly, Bob McLean, Ned Broad, Jim Pitts, Clarence E. Gage, Bob Cutting, Charlie Rodgers, Mal Dean, and myself.

Had a letter last month informing me that Clarence (also Course II) died on June 26, 1952. He had been in ill health for several years and lived in St. Petersburg for at least a dozen years prior to his death. He had for most of his business life been associated with the Bucyrus-Erie Company.

Changes of address since last writing are Lloyd Buell, III, from El Paso, Texas, to 1425 East Ten Mile Road, Royal Oak, Mich.; James M. Lambie, II, to the George Washington Hotel, Washington, Pa.; and Robert K. Clark from Illinois to Fish Creek, Wis. Sid Strickland because of his retirement from business has resigned his office as assistant secretary. His son, Charlie, is operating the architectural office of Strickland and Strickland.—FRED W. GOLDTHWAIT, Secretary, 274 Franklin Street, Boston 10, Mass.

## • 1906 •

Greetings to classmates at the beginning of Volume 55 of *The Review*! As Alumni Day, June 9, occurred too late to be included in class notes in the July Review, we will open the November notes by mentioning '06 activities on Alumni Day. Eleven classmates registered for the day. They were: W. G. Abbott, H. W. Brown, Sherman Chase, R. S. Clark, George Henderson, T. L. Hinckley, Charles Kasson, Dr. J. H. Means, Ned Rowe, A. B. Sherman, and the Secretary. All except Henderson, Means, and Sherman attended the luncheon, which gathering was made more enjoyable by the presence of Mrs. Chase, Mrs. Hinckley,



Mrs. Rowe, and Mrs. Chesley, a guest of the Chases. Nine of the 11 classmates attended the banquet, the two absent ones being Kasson and Means. For further information about Alumni Day, readers should refer to the July Review which contains a complete, illustrated, and most interesting account of the entire proceedings.

Each class affair most always includes some member of the Class who has not attended any class functions for many years and who, therefore, is doubly welcome. H. W. Brown, II, was the individual in this category on June 9. Brown has now retired after a business career including the American Agricultural Chemical Company, the Postum Company, General Foods, and so on, and is now residing at 110 Patterson Avenue, Greenwich, Conn. The Secretary and Assistant Secretary had a pleasant visit with him in the interval between the luncheon and the banquet. He has adopted for his hobby the manufacture of silver articles, and showed some most interesting photographs of some of the pieces which he had turned out. He recently has taken up the application of enamel to silver and demonstrated an intriguing little silver bowl lined with blue enamel which was his first attempt at enameling. Bob Clark, who comes from California, should have been eligible for an award for coming the longest distance had such been available. Incidentally, Abe Sherman, who was very faithful in attending class affairs while residing in Fitchburg, about 40 miles from Boston, this time came from his new place of residence, Rochester, N.Y.

This column has contained previous references to Dr. J. H. Means who spent his freshman year with '06 and then transferred to Harvard where he obtained his A.B. and M.D. degrees. He was associated with the Massachusetts General Hospital for many years and became head of the Department of Internal Medicine. He retired from Mass. General in 1951 and is now assistant director of the M.I.T. Medical Department. He has recently been presented the Squibb Award for 1952 for "meritorious work in the field of endocrinology."

At the Bowdoin College Commencement in Brunswick, Maine, last June, George Burpee was elected a trustee of the college. He has been an overseer since 1945. George got his A.B. degree from Bowdoin before coming to M.I.T. In 1932 he received an honorary degree of doctor of science from that college. George is a partner in the engineering firm of Cloverdale and Colpitts, New York.

The Secretary has received reports of the deaths of two classmates, as follows: William H. Hoyle, who died at Wickford, R.I., on December 2, 1950, and Louis S. Murphy who died December 3, 1945. Hoyle was associated with Course XIII and Murphy with Course VII. The class cards indicate that Hoyle at one time had been a fire prevention engineer in Boston, and Murphy was associated with the Department of Agriculture in Washington, residing at Chevy Chase, Md. No other information is available. — JAMES W. KIDDER, *Secretary*, 215 Crosby Street, Arlington 74, Mass. EDWARD B.

Rowe, *Assistant Secretary*, 11 Cushing Road, Wellesley Hills 82, Mass.

## • 1907 •

June 20, 1952, was one of the most beautiful days ever known in eastern Massachusetts. It was so remarkably clear and comfortable that even the residents of Cape Cod were commenting on it as men of our Class arrived at Oyster Harbors Club at Osterville for the opening day of our 45th reunion. Hence, to those of us who had been there before, the loveliness of the clubhouse itself with its surrounding gardens and lawns and its outlook over Cotuit Bay was appreciably enhanced, and to those who have never previously seen the place the weather contributed in no small degree to the satisfaction of their first impressions. A few of our fellows had arrived at the Club on June 18 or 19, but the official period of our gathering was from the afternoon of Friday, July 20, until the afternoon of July 22, and during at least a part of that 48 hours the following '07 men were present: Bob Albro, Dick Ashenden, Clinton Barker, John Bradley, Carl Bragdon, Howard Chase, Bill Coffin, Allan Cullimore, Paul Cummings, Leverett Cutten, Fred Dempwolf, Ellis Doucette, Parker Dodge, Chick Eaton, John Frank, Louis Freedman, Jim Garratt, Tom Gould, George Griffin, Wheaton Griffin, Hud Hastings, Bebe Hosmer, Stud Leavell, Roy Lindsay, Frank MacGregor, Milton MacGregor, Alexander Macomber, Hermann Mahr, Sam Marx, Howard McChesney, Bryant Nichols, Tucky Noyes, Bill Otis, Hugh Pastoriza, Maurice Pease, Bob Rand, Don Robbins, Merton Sage, Gilbert Small, Albert Stevenson, Phelps Swett, Oscar Starkweather, Chet Vose, Willis Waldo, Phil Walker, and Sidney Wells. Also with us as most welcome guests were Maurice R. Scharff '09, who is a close friend of Frank, Leavell, and Marx; and George C. Lees '08, who came with Tucky Noyes. For Doucette, Wheaton Griffin, Stevenson, and Wells, this was the first experience in attending one of our reunions. The rest of us were mighty glad to see them, and judging by appearances, they had a grand time and will hope to be with us again.

This was the sixth successive and successful reunion that we have held at Oyster Harbors Club. This is a good place in these notes to announce that by an overwhelming majority the fellows voted at our Saturday evening, June 21, class meeting that we shall hold our next reunion at the same place and in 1955 — three years hence. Tentative dates are already set with the club management for Friday, June 10, to Sunday, June 12, 1955. So note these dates on your calendar as a definite engagement for you. As in previous years, the delicious food, served with the utmost of courtesy and efficiency; the homelike and attractively furnished and equipped bedrooms, living rooms, dining room, porches, and grounds; and the cordiality and helpfulness of the manager, Donald E. Church, and all of his assistants combined to make our all-too-short visit a delightful and memorable occasion.

For the most part, the fellows were

contented to spend the time in chatting in reminiscent vein or with forward-looking interest with their classmates, some of whom they may not have seen since 1907. Some played golf under the helpful leadership of Don Robbins on the very fine course which is immediately adjacent to the clubhouse. Some 25 of us took advantage of the opportunity afforded, as part of our reunion program, for trips along the shore in a powerboat (not "sailing," as Starkweather carefully called to my attention, referring to the statement in our announcement regarding this reunion that "sailing" was included in the charges paid by those attending) on the Saturday morning and afternoon. Automobile rides and walks in the charming combination of countryside and seaside which the location provides were frequent.

On the Saturday evening of our reunion, following the taking of a group photograph, all of us ate together for our class dinner and then adjourned to one of the parlors for our class meeting with Alexander Macomber, our Class President, serving as master of ceremonies in his usual happy manner. As your Class Secretary, I read greetings from classmates unable to be present, reported on deaths of '07 men since our June, 1949, reunion, presented a few facts and figures relating to the Alumni Fund and the M.I.T. Development Program, with particular reference to our own class participation in them. (For the sake of those of you who do not regularly receive *The Technology Review*, but who are receiving one of the reprints of these particular notes which I am mailing to all men on my class mailing list, I will state that 72 members of '07 subscribed \$110,778.75 to the Development Program — a very creditable showing. In fact, only eight classes subscribed larger amounts.) Phil Walker, our Class Treasurer, presented his report showing that as of June 1, 1952, our balance on hand was \$786.96. Included in the income portion of the report was the sum of \$369.00, which represented class dues paid by 79 class members as the result of Phil's letter mailed to all our members during last spring. Considerable discussion took place concerning the nature of a gift to be made to the Institute in 1957 in connection with our 50-year reunion. Of course no definite decision was arrived at. Further consideration and report was left in the hands of the class officers. Phil Walker showed some moving pictures of classmates that he had taken at previous reunions, and we called it an evening.

In planning the financial end of our reunions we never seek to make a profit but we do want to come out even. It is gratifying to report, therefore, that at our June gathering we had receipts above expenditures of \$15.02, our receipts, from registrations paid, being \$1,504.00, and expenditures, for publicity plus cost at Oyster Harbors Club plus boat hire of \$100.00, \$1,488.98. This \$15.02, together with \$38.25 of class dues collected since June 1, plus \$35.50 of reunion expenses paid prior to June 1, added to \$786.96, our balance as of June 1, gave us a bank balance in our class treasury, as of September 1, 1952, of \$875.73.

The total number of men ever considered by the M.I.T. Register of Former Students to be '07 men is 511. Of that number I now have addresses of 291; 176 or 34.4 per cent are known to be dead, and I know nothing about 44. Of our 209 graduates, 67, or 32 per cent, have died. I now have 198 names on my mailing list. The following 23 men died between our June reunion of 1949 and our reunion of 1952: Rutherford Bingham, Elmer R. Bitler, E. Dexter Boles, Percy J. Colvin, J. Samuel Coupal, Edward A. Dragan, Charles R. Faben, Herbert L. Fletcher, Roger D. Gale, Ralph N. Hall, Raphael G. Hosea, Alfred J. Krafft, Ernest F. Lewis, John M. McMillin, Edward L. Moreland, John S. Nicholl, Prescott R. Nichols, Morris A. Stewart, Robert E. Thayer, William R. Tompson, James L. Walsh, Raymond Ware, Harold S. Wonson.

You have noted in the above list the name of James L. Walsh — Jimmie Walsh to some of us who remember him as a lieutenant in our Freshman Corps of Cadets in 1903-1904 and who have corresponded with him through the years; and Colonel James L. Walsh, U.S. Army, retired, President of the American Ordnance Association, Washington, D.C., to a vast number of leaders in United States government, Army, Navy, industry, and science. Jimmie died at Walter Reed Hospital on June 11 after a two-week illness. Only two days before, he had been cited by Secretary of the Army, Frank C. Pace, Jr., for his contributions to the nation's security. He was graduated from the United States Military Academy at West Point in the Class of 1909, was commissioned a second lieutenant in the Army, was promoted through grades, and retired with the rank of colonel in 1922. Almost his entire service was in the Ordnance Department of the Army. As a young officer, he was the inventor of the Walsh sliverless smokeless powder grain, the patent for which he gave to the free use of the United States government. Later he was assigned to the design of the disappearing carriage for the 16-inch gun, the largest in the world at that time. After retiring from the service, he became, successively, assistant vice-president of Bankers Trust Company, New York, vice-president and director of McGraw-Hill Publishing Company, and vice-president of the National Bank of Detroit. In 1919 he took an active part in the formation of the Army Ordnance Association which, in 1948, became the American Ordnance Association. He was founder and first editor of the Association's journal, *Army Ordnance*, and also of their publication, *Logistics*. In 1947 he became president of the Association, the leading society in the United States devoted to technical and scientific preparedness, now comprising more than 35,000 members, including many national leaders in science and industry. In World War I Jimmie served as assistant to chiefs of ordnance of the Army and saw service in Mexico, England, France, Belgium, Italy, and Austria. From 1923 to 1932 he was chief of the New York Ordnance District. During World War II he was special adviser to the chief of Ordnance of the Army, and was also chair-

man of the War Production Committee of the American Society of Mechanical Engineers. In addition to the Distinguished Service Medal, Jimmie wore the Victory Medal, the Mexican Border Service Medal, and the Order of Commander Saints Maurice and Lazarus of Italy. In 1941 he was awarded the Crozier Gold Medal by the Army Ordnance Association for outstanding service to the nation in the field of industrial mobilization planning. He was for many years a trustee of the Association of Graduates of the United States Military Academy. He was a member of the Metropolitan Club and the Army-Navy Club in Washington and the University Club, New York. He is survived by his widow, the former Mazie Porcher, whom he married June 29, 1918. Funeral services were held on June 13 at Fort Myer Chapel, and he was buried in Arlington National Cemetery with full military honors. The list of honorary pallbearers included the names of 86 nationally- and internationally-known leaders of government, Army, Navy, science, and industry.

At M.I.T. Alumni Day, June 9, 1952, the following '07 men were present for either afternoon or evening, or both: Eugene Banfield, Clinton Barker, Bill Coffin, George Crane, Louis Freedman, Ralph Hudson, Alexander Macomber, Hermann Mahr, Bryant Nichols, Don Robbins, Gilbert Small, and Phil Walker.

On June 25, 1952, there occurred the death of Edwin B. Snow, who graduated with our Class in the Course in Mechanical Engineering. I have never heard from him directly since 1907. During most of his life he was in the insurance business, having been for 27 years the owner-manager of the Snow Agency in Detroit, Mich., and previous to 1925 a special agent for several Michigan companies.

In my class notes for the July, 1952, issue of *The Review*, I quoted from a letter from Carl Bragdon. He attended our reunion, and under date of August 24 wrote me sending for our class archives a set of prints of snapshots he took at that event. He stated that as of August 31 he was retiring from Interchemical Corporation Research Laboratories in New York, to devote his entire time to consulting work. His letterhead, bearing his own name, has the words, "consultant in surface coatings and their materials," with his home address, 4 Rock Ridge Road, Larchmont, N.Y. — Mrs. Florence Burhans, wife of our classmate Harry, 2627 East Genesee Street, Syracuse, N.Y., wrote me last May saying that Harry could not attend our reunion as he had expected because of continuing illness resulting from an attack of cerebral thrombosis on November 10, 1951. I have heard nothing further regarding his condition. — Carroll Dean retired in March, 1950, as materials engineer, office of Chief of Engineers, U.S. Army, in Washington. His home address is 100 East Underwood Street, Chevy Chase 15, Md. — John F. Greene wrote me last May saying that he was project manager for Ford, Bacon and Davis Construction Corporation, which is acting as agent for the Southern Natural Gas Company pipe-line project. His address then was Post Office Box 250, Ham-

mond, La. Under his direction a 300-mile gas line was being started to connect the main line of the Southern Natural Gas Company with offshore wells in the Gulf of Mexico.

In commenting above on the activities at our class meeting held at Oyster Harbors Club on June 21, I purposely omitted one item which will interest all of you. After some preliminary remarks, Stud Leavell offered the suggestion that the Class should go on record to the effect that we consider Clarence Howe as "the outstanding man of the Class of 1907." This suggestion was quickly and enthusiastically adopted by a formal vote, and your Secretary was instructed to notify Clarence of this action. Under date of June 30 I sent to our classmate, Minister of Trade and Commerce and of Defense Production for the Dominion of Canada, the following message: "At our class meeting on Saturday evening, June 21, 1952, held at Oyster Harbors Club, Osterville, Massachusetts, in connection with the forty-fifth reunion of the Class of 1907, Massachusetts Institute of Technology, the forty-five members present instructed me to inform you that it was unanimously voted that you be recognized as the outstanding man of the Class of 1907 because of your long-continued and notably successful services and statesmanship in promoting the welfare and prosperity of the Dominion of Canada, and in advancing friendly relationships between Canada and the United States of America." Under date of July 8 I received the following reply: "Thanks for your letter of June 30th reporting on our class meeting at Oyster Harbors Club, Osterville, Massachusetts, in connection with the forty-fifth reunion of the Class of 1907. I am of course greatly honoured to have been chosen the outstanding man of the Class of 1907. I hope that distance of headquarters has not contributed to my standing with the Class. It is good to know that at least I am not forgotten by my old friends of '07. With warm regards, Yours sincerely," and signed "C. D. Howe." Honors continue to come to our distinguished classmate. *Colliers* magazine, issue of August 9, 1952, and the August issue of *Fortune* both contain articles of outstanding interest and value concerning him and his work. Space available prevents my quoting any extensive portion of these stories. *Fortune* has a wonderfully fine reproduction of his photograph, and heads its article with the title, "C. D. Howe of Canada," with subtitle: "He's the man who made it a businessman's country." *Fortune* describes Howe as enjoying a "sensational seventeen-year success in government by behaving like a businessman. Operating on the principle that nothing matters much except business, relying on his ability to persuade, help, and browbeat businessmen into expanding, Howe has been the biggest single force in Canada's phenomenal industrial growth. He is generally regarded as the most powerful man in Canada. Prime Minister St. Laurent rarely makes an important decision without consulting him, and no Canadian businessman would think of making a big deal without first talking to him." On Sep-



tember 10, Clarence received the Hoover Medal for distinguished public service at the centennial day luncheon of the convocation of engineers in Chicago. This convocation, September 3-13, marked the 100th anniversary of the founding of the American Society of Civil Engineers. The Hoover Medal is given by the American Society of Civil Engineers, American Society of Mining and Metallurgical Engineers, American Society of Mechanical Engineers, and the American Institute of Electrical Engineers.

A Defense Production Administration release dated June 5, 1952, reads in part as follows: "Appointment of John C. Kinnear as the United States representative to the Copper-Zinc-Lead Committee of the International Materials Conference was announced today by Henry H. Fowler, Defense Production Administrator. . . Mr. Kinnear, former vice president in charge of operations in the United States and South America and director of the Kennecott Copper Corporation, will continue in his post as assistant to the Director of the Office of Defense Mobilization for metals and minerals. He also will serve as chief adviser to DPA Administrator Fowler on all copper matters, domestic and foreign, as they affect the defense production programs." — Walter B. Kirby, architect, is now in Lakeville, Conn. He moved from New Canaan, Conn. — On last June 4, Roy Lindsay became president of Pratt and Lambert, Inc., manufacturers of paints and varnishes located in Buffalo, N.Y. Roy joined this organization in 1908 and has served, successively, as chief chemist, manager of industrial sales, assistant treasurer and general sales manager, vice-president and treasurer. He is active in the affairs of the paint industry both in the United States and Canada.

Henry Loring is now president of Ferro Concrete Construction Company, Cincinnati, Ohio. — At our reunion we very definitely missed two men who have had a record of just about 100 per cent in reunion attendance through the years. George Crane was kept away at practically the last moment due to the death of his brother; and Harry Moody, of whom I wrote in the June Review, was still in Brazil, South America, with his wife, visiting their son. George telephoned his regrets to me at the Oyster Harbors Club, and a cablegram of greeting and regrets from Harry was awaiting me on my arrival there. — Floyd Naramore wrote on June 1 from Seattle, Wash., that on May 28 he had just returned from a three months trip, made on a Norwegian freighter, to the Philippine Islands, Hong Kong, Malaya, Java, and Borneo. — Some of the men at our reunion asked me if I knew anything about one of the coeds of our Class, Maude Frances Darling, who many years ago married Raymond W. Parlin '07. I knew that Parlin had died in 1923, but I have never heard directly from Maude, although at times I have written to her at a Fall River, Mass., address given in the M.I.T. Alumni Register. Recently, through the co-operation of a Fall River resident whom I know well, I have learned that Maude is still living and is

practicing architecture in the office of her brother, George S. Darling, 184 Bank Street, Fall River. Her own home address is Mrs. Raymond W. Parlin, 59 Highland Place, Fall River. — The address of Seldon E. Rockwell, Course II, is now United Water Conservation District, 806 Railroad Avenue, Santa Paula, Calif. — Stanley Wires, 45 Windsor Road, Wellesley Hills 82, Mass., wrote me last May that he had given up his position as sales representative of the Cambridge Tile Company of Cincinnati, and was dividing his time between a Boston office, his tile collection, and eight grandchildren, with a little gardening thrown in.

I hope you are planning to contribute generously to the M.I.T. Alumni Fund, regarding which you have no doubt already received special messages. — BRYANT NICHOLS, *Secretary*, 23 Leland Road, Whitinsville, Mass. PHILIP B. WALKER, *Assistant Secretary*, 18 Summit Street, Whitinsville, Mass.

## • 1909 •

It is with some unhappiness that we begin the class notes this year for, during the summer, we lost not only our Class Secretary, but a most loyal friend of the Class and the Institute. Paul M. Wiswall, V, died on June 15 in Detroit where his sister Mrs. Marian W. Fairbrother lived. She had been caring for him since his health had begun to decline. Paul was born in Providence, R.I., in 1881, and was educated in the local schools and Brown University before entering the Institute. He graduated from the Institute in 1909 with a degree in Chemistry. He was with the Union Carbon and Carbide Corporation in Ohio until 1917 when he was commissioned as captain in the Chemical Warfare Service. In 1919-1920 he traveled around the world and became very interested in the Dutch East Indies and many of his experiences have appeared at different times in the class notes. Upon his return he joined the Franklin Baker Company and later became a member of the purchasing staff of the General Foods Corporation when the Franklin Baker Company was taken over. He remained with General Foods until his retirement in 1942.

We need not be reminded of Paul's ever keen interest in Institute affairs. For years he was local secretary in the New York area and he did much in maintaining the class interest there by organizing luncheons and meetings at which officers of the Institute, as well as others, were speakers. In the fall of 1942, following the death of Charlie Main, II, Paul took over the position of Class Secretary and the writer was made Review Secretary to assist Paul in preparing the class notes as well as keeping in close contact with the Alumni Office. One need only read over the notes for the last 10 years to appreciate all that Paul accomplished, not only in obtaining news items from classmates but in describing his visits to the Institute and the activities that were transpiring there. Something like five years ago Paul presented the Institute with a sailing dinghy christened "Hope" by his niece, Hope Wiswall. The ceremony was accompanied by a dinner and was honored by the

presence of President Compton. Paul has also carried a substantial life insurance policy with the Institute as beneficiary.

This past summer the Review Secretary and Muriel, while on a cruise, visited Isle au Haut, Maine, where Paul spent so many summers and we met the Stanley Dodges with whom he stayed as well as others there who knew him. They spoke of his thoughtfulness and generosity and the affection which the children had for him. We had learned indirectly of his many good deeds, such as financing the college education of some of these children from Maine, making a substantial wedding gift to the daughter of the Farrars so that she could purchase a home.

In 1950, the Farrars, with whom Paul made his home in Glen Ridge, N.J., for 25 years, were obliged to move to Baltimore and it was a severe blow to Paul to lose a home to which he had become so attached. Shortly afterward a slight illness caused temporary hospitalization, and on his release he went to Detroit where he lived in a convalescent home near his sister and he seemed most contented there. Flowers were sent by the Class to the service and Mrs. Fairbrother wrote: "Yes, the flowers arrived . . . and somehow I felt that they would have given Paul more pleasure than any of the others. The Class of 1909 meant so much to him." Paul's own rector drove from New Jersey to assist in the service.

His interest in the Dutch East Indies led him to become one of the founders of the Java Tiffin Club, and at one time he was awarded a medal for his contributions in promoting interest in Dutch activities. He was also a member of the Technology Club and the University Club, both of New York. It would be difficult to find a person who took more interest in people, and who was more beloved by them than Paul. Like Will Rogers, it could well be said of him that he never met a person whom he didn't like.

We have recently received notice of the death in April of another classmate, Benjamin Hammond, III, who was 67 years old. He died in an Arlington, Va., hospital of a heart attack while visiting a daughter in Washington, D.C. After graduating from the Institute, Benjamin was located in Montana, Syracuse, N.Y., and Birmingham, Ala., and finally settled in Montreal, Quebec, where he became associated with J. and F. Haight Sons, a brokerage firm with whom he remained until his retirement. He was a native of Austin, Nev. He is survived by five children: Mrs. Haggerty, wife of Lieutenant Colonel John E. Haggerty of the Pentagon; Benjamin Hammond, Jr., of New York; Mrs. Frederick Gregory of Hartford, Conn.; and Roland Hammond and Anne Marie Hammond, both of Montreal.

On Alumni Day there were 10 of us who enjoyed luncheon together under the awnings in Du Pont Court — George Bowers, I; Chet Dawes, VI; Tom Desmond, I; Francis Loud, VI; Ken May, VI; Fred Perry, VI; Art Shaw, I; Chick Shaw, V; Henry Spencer, II; and George Wallis, II. Warren Glancy, son of Bob Glancy, VI, also joined us. After the luncheon, we were privileged to hear first Mrs. and

then Mr. Robert Vogeler '37, he having been incarcerated in a Hungarian prison for several months. In the evening at the Alumni Banquet held at the Statler, Howard Congdon, I, and Johnny Davis, II, were added to our number. We have reported earlier that Howard's son, John, was preparing at Hingham High School for admission to the Institute. Howard naturally is more than pleased that John has now been admitted and starts work in the fall.

A clipping, headed by his picture from the *Patriot*, Putnam, Conn., tells of the retirement on June 2 of Bob Keeney, III, rate engineer of the Connecticut Light and Power Company. Bob came to the company as an industrial heating engineer after previous work as an engineer in western mines and with the Westinghouse Electric Corporation. Bob was very active in several utility organizations, being a member of the New England Gas Association, the Power Engineers Association of New England, chairman of its industrial division, and a member of the rate committee of the American Gas Association. Last year the New England Gas Association presented him with its annual award as a tribute to his contributions to the Association. In 1929 a great honor was paid to Bob when his paper, "Melting and Metallurgy in the Non-Ferrous Industry," was read in Tokyo, Japan, at an international congress of power experts. Bob lives in Farmington, Conn. His son, Barnaby Keeney, was recently named dean of the college after having served as dean of the Graduate School of Brown University.

This last August we were honored by a visit to the Isle of Springs, Maine, by Lewis Johnson, VI, and Mrs. Johnson. They were accompanied by Professor Rollins, retired, of Tufts College, and Mrs. Rollins. Lewis has a summer cottage at Pleasant Beach, South Thomaston, not many miles from our island. We had short rides in the cruiser and the Chris-Craft runabout. Lewis and Mrs. Johnson were particularly appreciative of the boats, for at one time they also owned a cruiser.

In the Sunday *Globe* of Boston, August 31, there was a picture of Florence Luscomb, IV, as the Peace Progressive Party's candidate for governor of Massachusetts, together with a brief biography which told of her activities in the many causes which she espouses. She campaigned for women's suffrage when she was a student at the Institute, a cause in which her mother, Hannah Skinner Luscomb, had been a pioneer.

Tom Desmond, I, is the author of two recent articles: "The Plight of the Elderly" in the August number of *Today's Health* magazine, and "Those Sunshine Letters" in the August number of *Coronet*. We have just received a copy of *Alexander Hamilton's Wife* by Alice Curtis Desmond with the compliments of Tom and Alice. We recommend highly the reading of all these writings, particularly the last. Alice already is the author of two similar biographies, *Martha Washington* and *The Glamorous Dolly Madison*.

In closing, we trust that you all had a most pleasant summer and that you will

assist the Secretary by being generous with news items. — CHESTER L. DAWES, *Review Secretary*, Pierce Hall, Harvard University, Cambridge 38, Mass. *Assistant Secretaries*: MAURICE R. SCHARFF, 366 Madison Avenue, New York 17, N.Y.; GEORGE E. WALLIS, 185 Main Street, Wenham, Mass.

## • 1910 •

The Class was represented at Alumni Day, June 9th, by Jack Babcock, Bob Burnett, Carl Lovejoy, Carl Sittinger, Merton Turnbull, Cliff Waldo, and your Secretary. A most enjoyable time was spent at the luncheon and the Alumni Banquet.

It is with deep regret that I have to announce the death of Arthur L. Harding. The following was received from Kenneth M. Lane of the Class of '17: "Arthur L. Harding (VI) died May 2d of a heart ailment at a mountain resort near Casablanca, French Morocco, while on an extended tour of Europe and Africa. He is survived by his wife, Mrs. Marjorie C. Harding, who was with him at the time. Born in Boston in 1880, he graduated from Mechanic Arts High School in 1906 and from the Institute in 1910. Following graduation he was employed in various capacities by power and light companies in Colorado and Nebraska and in 1913 went with the consulting firm of D. C. and William B. Jackson, specializing in public and private utility matters, including design, construction, appraisals, operation, and so on. In 1917 he joined the Electric Bond and Share Company system, with which he remained until his heart condition made necessary his retirement in 1946. At the time of his retirement he was chief electrical engineer of Ebasco Services, Inc., in responsible charge of all electrical design work and special engineering studies and reports. He was a Fellow of the American Institute of Electrical Engineers and a member of the Edison Electric Institute. He was quite active in the affairs of both of these organizations, having served on many of their more important committees. Upon his retirement, he lived at his summer home in Madison, N.H., where his widow now resides. While his health never improved to such an extent as to warrant his return to full business activity, he was able to resume the foreign travels which he enjoyed. In 1949 and 1950 he and Mrs. Harding spent about 10 months in France, Switzerland, and Italy, with a brief tour of the Mediterranean. As this trip seemed to have a beneficial rather than harmful effect, he and Mrs. Harding left for Europe again in March of this year, planning to spend several months mostly in North Africa, Spain, and Portugal, which was comparatively new territory to them. It was this trip which was interrupted by his death."

Carroll Benton has spent the summer touring the U.S.A. by auto. I have had several cards from him and there is no question about his enthusiasm for the West.

Philip G. Laurson has retired from the faculty at Yale University. The following is from the *Journal-Courier* of New Haven, Conn.: "Mr. Laurson joined the

Yale faculty in 1920 as assistant professor of engineering mechanics. He was promoted to associate professor in 1925 and named associate professor of civil engineering in 1945. A native of Oneida, Ill., he received his B.S. degree from Dakota Wesleyan College in 1907 and a B.S. degree from M.I.T. in 1910. He worked as an assistant engineer with the American Bridge Company and later with the Federal Shipbuilding Company from 1910 to 1919. During World War II he was the university's representative on the Engineering Defense Training Program under the U.S. Office of Education. Some 2,000 men and women in industry received instruction, in courses given in Yale buildings. Mr. Laurson is coauthor of *Mechanics and Materials* and also of *The Early Years of Modern Civil Engineering*."

Lawrence B. Chapman has retired from the Faculty at M.I.T. The following is from the New York *Journal of Commerce*: "Professor Lawrence B. Chapman, who is retiring after 27 years service as director of the course on marine transportation at Massachusetts Institute of Technology, was tendered a luncheon at the Metropolitan Club yesterday by leading shipping executives who honored his contribution to the welfare of the industry. Hugh Gallagher, national president of the Propeller Club of the United States, who acted as host, stressed the great gap that would be created with Professor Chapman's retirement and voiced the hope that an adequate replacement would be found by the school. Professor Chapman announced he has no present plans other than to take a year's vacation in California."

Barton Wheelwright has retired. The following is from the *Railway Age*, of New York: "Barton Wheelwright, chief engineer of the Canadian National at Montreal, Que., has retired on pension after 41 years of service. Mr. Wheelwright was born on March 12, 1888 at Minneapolis, Minn., and was graduated from Harvard University (A.B. 1910, M.E.E. 1911), and Massachusetts Institute of Technology. He entered railroad service in 1911 as draftsman with the Grand Trunk (CN) at Montreal and later served as assistant signal engineer, acting signal engineer and engineer maintenance of way of GT lines in New England. At the close of federal control of railroads after World War I Mr. Wheelwright was appointed engineer-accountant dealing with matters pertaining to settlement between the corporation and the United States Railroad Administration. He was appointed special engineer of the CN in March 1923, becoming assistant to chief engineer in January 1928, engineer maintenance of way of the Central region in July 1936, chief engineer of that region at Toronto in July 1939, and chief engineer of the system at Montreal in April 1945."

The following is from a letter received from Herb Reynolds: "For a little personal history, my oldest son is in Japan in the Air Force and has his family, consisting of his wife and two children, with him. My youngest son is supervisor of art education in the elementary grades in



Rome, N.Y., and my daughter has four children, so that I am the Grand-daddy to four grandsons and two granddaughters with another of undetermined sex expected in December. There hasn't been anything of particular interest which has happened to me in a number of years and I just keep plugging along the best I can in spite of some slowdown due to arteries which seem to be growing older faster than I am."

Walt Spalding had luncheon with me this past week. He was on his yearly trip from Hawaii to catch up on the latest methods of construction and to visit his son and friends.

Allen Gould called me earlier in the summer but I was away on my vacation. My vacation this year was a trip to Alaska by the inland passage. It was a wonderful trip and thoroughly enjoyed by Mrs. Cleverdon and myself. While in Seattle I called on Maurice Anderson and Leander Dow. — HERBERT S. CLEVERDON, *Secretary*, 120 Tremont Street, Boston 8, Mass.

## • 1911 •

Here we are, mates, right back "on the beam" in the annual Alumni Fund program. In 1950, you'll remember, we concentrated on the highly successful \$20,000,000 Development Fund drive, while last year there was no direct solicitation of Alumni who had made substantial gifts to that fund and were making quarterly payments. Accordingly we had fund contributions in 1951-1952 from but 97 classmates for \$2,208, whereas in 1949-1950 there were 160 of us who gave \$3,743. Now, with Alumni Fund No. 12 already under way, we all must do our share to keep 1911 in the forefront, where it has always been in the preceding 11 Alumni Fund drives.

During the summer, word has been received of the passing of four classmates. Charles Sumner Williams, V, who retired in 1941 as chairman of the board of directors of Thomas A. Edison, Inc., died May 22 in his home at Friendship, Maine, after a long illness. Charlie did not stay with us beyond the sophomore year, transferring then to Harvard where he received an A.B. degree in 1912 and the following year joined the Edison Company, which then produced motion pictures in the East, as a scenario writer. An infantry major in World War I, he held various government posts in World War II in the Office of Production Management and the War Production Board. He was a member of Delta Psi Fraternity and is survived by a widow, two sons, and two daughters.

Charlie Ashley, III, son and namesake of the former perennial mayor of New Bedford, Mass., died in his native city on June 2, after having been critically ill with heart trouble for months. An insurance man, he had been active in New York from 1934 until his retirement last year, as vice-president of the Maryland Casualty Company. Charlie prepared for college at Peekskill Military Academy, and, following two years with us, transferred to the Colorado School of Mines, and then with his father and a brother founded the Charles S. Ashley and Sons Insurance Company in New Bedford in

1911. He left in 1928 to become resident manager for the Maryland Casualty Company in St. Louis, Mo. Charlie was a charter member of the Rotary Club of New Bedford, and as club president in 1925 he led a club program for the benefit of St. Luke's Hospital. He was also a past exalted ruler of New Bedford Lodge of Elks. Survivors are his widow and his sister.

Augustin Frigon, VI, director of planning and research of the Canadian Broadcasting Corporation, died suddenly July 9 in Montreal. Former general manager of CBC, he was named to the new post late last year following a serious illness, in order to avoid danger of strain caused by heavy administrative duties as general manager.

Gus graduated from École Polytechnique, Montreal, in 1909 and then joined us for postgraduate work, following which he was professor of electricity at his original alma mater until 1928, when he became dean. He obtained a degree from École Supérieure d'Électricité de Paris (Sorbonne) in 1921 and a doctor of science was awarded him in 1922 by the Université de Paris (Sorbonne). He also received an honorary doctor's degree at the University of Montreal in 1943 and since 1935 had served as president of the Corporation de l'École Polytechnique de Montreal.

Known internationally for his electrical and electronic achievements, Gus was a junior member of the original Royal Commission that recommended a nationalized Canadian broadcasting system in 1929. He was also prominent in consulting engineering and education circles in Quebec, where, for a time, he was director of technical education. He was instrumental in installing four 50-kilowatt stations in Canada as well as low-power repeating stations in remote communities. He is survived by a widow, the former Elsie Maria Owen, and a daughter, Marguerite. The Frigons lost one son in World War II.

Although only with us during one year as a postgraduate, Gus was an enthusiastic '11 man and always supported the Alumni Fund and all other Institute drives. Typical of the man was a letter he wrote me just six weeks before his death: "My health has caused me some troubles lately and I am half retired and will be completely out on April 1, 1952. Nevertheless, I enclose herewith a check to your order, which will be my modest contribution to the Class of 1911 Alumni Fund. I hope you are still the going concern that you have always been; when I look back to my year at Boston, I think of it as one of the most important steps in my progression-through life." There was a man!

Word was received in mid-summer, in answer to a request following return of mail, of the death at his home in Deming, N.M., of Ivory S. James, III, a victim of cancer. He was with us for a short time, transferring to the Colorado School of Mines in 1909. He is survived by a widow and one brother.

Here's that magic number again: We had 11 Eleveners at Alumni Day on June 9: Obie Clark, II; Bill Coburn, XI; George Cumings, VI; Dennie Denison,

VI; Henry Dolliver, I; Calvin Eldred, VI; Fred Harrington, I; John Herlihy, II; Ed Kruckemeyer, IV, all the way from Cincinnati for his first Alumni Day in years; O. W. Stewart, I; and Aleck Yereance, I. Why not make your plans now to try to attend Alumni Day, 1953, on Monday, June 15th.

Rufe Zimmerman, IX, recently retired as vice-president, director, and chairman of the Research Policy Committee of United States Steel Company, after more than 37 years of service with the company. Certainly went out with flying colors, as the feller sez. Cac Clarke, 1921's efficient Class Secretary, sent me a clipping from the May 20 Newark *Evening News* telling of Zim's talk before the New Jersey chapter of the American Society of Metals the preceding evening, telling of the current expansion of the production facilities of the nation's steel industry and the need for more production east of the Alleghenies, where with 28 per cent of the population there is less than 20 per cent of the total steelmaking capacity.

Then on June 28, Rufe told the First Iron Works Association at its annual meeting in Saugus, Mass., that the Saugus Iron Works, built in 1644, was the first successful blast furnace and iron producer operated in colonial America. He added that from the "brave and troubled beginning of this American 'first,' capable of producing 465 net tons of iron a year, there has issued a steel industry with facilities for producing annually 110 million net tons of ingots.

"The capacity of Saugus has been multiplied, during 300-odd years, by more than 236,500," he continued. "A modern blast furnace consumes enough material every 24 hours to have run the Saugus furnace three years." The founders of the Saugus iron works "were not following an American tradition, they were creating one," he declared, adding: "Their spirit of venture and independence . . . has been coursing through the channels of the iron and steel industries through the intervening three centuries and will continue to work wonders as long as it remains unimpaired by stultifying factors impressed from without." One particular advantage of your retirement, Rufe, will be your ability to attend all future class get-togethers—unfortunately others seemed always to interfere with board meetings of U. S. Steel you had to attend.

It took a lead article on the financial page of the New York *Times*, Sunday, September 7, embellished with a fine candid shot of the subject, to inform me why Bun Wilson, XIV, came to be called "Chief." Here is Bun's own version: "When I was a youngster in Bloomington, Ill., the fire chief was a man named Wilson. Later the Pittsburgh Pirates had a ballplayer named Wilson, who also was called 'Chief.' I just naturally inherited the title, because my name happens to be Wilson, too."

"It is an apt title for a man who is undoubtedly one of the foremost figures in the history of the domestic aluminum industry," the article continues, following its opening paragraph which read: "Irving W. 'Chief' Wilson, president of the Alu-

minum Company of America, occupies in the domestic aluminum business the same position that United States Steel's Benjamin F. Fairless holds in his industry—that of leader, spokesman and statesman.”

According to the article, “customer and competitor alike, government officials and private individuals, all agree that ‘Chief’ Wilson has been the most important factor in promoting the aluminum industry’s spectacular growth during his 41 years with Alcoa—and yet, with the exception of his frequent appearances before Congressional committees, he seldom makes the headlines, or addresses organizations or meetings other than those connected with Alcoa’s own internal activities.”

Bun, you know, joined Alcoa immediately upon graduation in 1911, and 10 years later became general superintendent of the company’s reduction plants; and 10 years after that was made vice-president in charge of operations at the age of 41. He went on the company’s board of directors in 1939, was advanced to the post of senior vice-president in 1949, and was elected president in 1951. In 1949 he received a Presidential Certificate of Merit in recognition of his contributions to the war effort and he was named the aluminum industry’s “Man of the Year” for 1950 in recognition of his achievements in planning and executing expanded production programs to serve the country’s needs. The article’s final two sentences are delightfully reminiscent of undergraduate days: “Those who know him say one of his principal diversions is bridge. His ability in that game is said to be comparable with his rating in the aluminum business.”

Another Wilson appeared in the news earlier this summer—Walter C. Wilson, X, of Lawrence, Mass. The Lowell *Sunday Sun*, in an illustrated feature article on June 22, paid tribute to the E. A. Wilson Company of Lowell, “which for just over three-quarters of a century has shown its innate faith in Lowell by continually keeping abreast of every step of progress in the fuel and building supply service.” Continuing: “Walter C. Wilson, who now heads the concern which has its yards and operational buildings on its original site—700 Broadway—carries on the same ideals and principles which have kept this concern in the lead in its field since shortly after its founding. He served in the U. S. Navy Air Force in World War I, as a flying instructor and following the end of the war joined his father (son of the founder) in business and upon the death of his father in 1927, Walter assumed full management of the company, with his son, Walter C., Jr., familiarly known as ‘Bill,’ who serves in the capacity of executive vice-president.”

One of my fraternity brothers, Clive Lacy<sup>15</sup>, told me that he and his wife had met a classmate of mine and his wife on a trip to the North Cape, so I received the following reply to a letter to Harold Babbitt, XI, professor of sanitary engineering at the University of Illinois in Urbana: “Yes, Elma and I took off last June for our European tour, which included a drive through Canada to Montreal, where we left our car and boarded the *Empress of Scotland*. We spent a

week in Scotland, then two weeks on a ship going up and down the coast of Norway to North Cape. Then a week in England, primarily London, where we became ‘experts’ on the political, economic, and historic facts of England today. Holland, Belgium, and Luxembourg together took another two weeks and it was in Lux that we began to feel what was in store for us during our tour of north-eastern France.

“That was a sentimental journey for both of us, since it was the territory over which I had traveled in ’17-’18 and about which Elma had heard much and knew much through correspondence. The only way to see that old territory is by private automobile so that’s the way we did it. Can you imagine my surprise at revisiting the village of Seicheprey (near Mont Sec) and viewing Mont Sec to see the stupendous monument that has been erected there by the U.S.A.? Only a student of the battles and leaders of World War I can appreciate the significance of Mont Sec and can understand why the U.S.A. has erected this beautiful monument there to commemorate the events that occurred in its vicinity. Yes, North Cape was a ‘high spot,’ but so was the return to Mont Sec.

“There was another interesting adventure in revisiting General Pershing’s headquarters at Chaumont. It is now a French barracks. As I got out of the car to take a picture, Elma remained in the car. The next thing she saw was me being marched between two guards into the ‘Casern’ under arrest for taking a forbidden picture. Although the French chauffeur was very alarmed, Elma had confidence that I might escape with a short sentence. Her confidence was apparently quickly justified, for in a few minutes I reappeared in the company of the colonel in command of the troops. When the sentries took me to the officer of the guard, he was puzzled what to do, so referred me to the commandant. He, upon finding that I had served in the Casern in ’17-’18, was ready to give me the place and he personally conducted me to spots from which to take good pictures. We had a Franco-American love feast reunion and departed swearing eternal friendship. There were other high spots on the journey, but North Cape, the sentimental journey to France, the visit to Carcassonne, and a second meeting with the Lacys in Paris, may be considered as outstanding.”

Don Stevens, II, our class prexy, went to Chicago in July as a New Jersey delegate to the Republican Convention, and in answer to a letter to the Ridgewood, N.J., *Republican* from “one who supported Mr. Stevens and would like to hear an explanation of his action in Chicago,” Don wrote: “In the primaries I voted for Taft and in the same primaries I was elected a delegate from the Seventh Congressional District, and in this district Eisenhower polled 33,149; Taft 30,254; and Stassen 2,179 votes. On Sunday, July 6, I sought Governor Driscoll in Chicago and told him I was a Taft man but would cast my vote for Eisenhower until released by him.

“There were only three occasions to

vote at the convention: (1) I opposed a change in the rules of the seating of disputed delegates. I was not under pressure—I made my own decision. Right or wrong, it seemed to me that there was no reason to change the 1952 rules over those of 1948 or 1944, which procedure, I was informed, had been in effect for nearly a century; (2) In the vote regarding the seating of one faction or the other in Georgia, I sought Governor Driscoll on the floor and conformed to his wishes, which would favor General Eisenhower in the selection of delegates; (3) In the one and only vote cast for nomination of a president, I voted for Eisenhower in accordance with the wishes of the Seventh Congressional District. Eisenhower won and I will support him gladly and willingly, as a good Republican should.”

Hearty congratulations to Carl Ell, XI, President of Northeastern University, for the honorary degree of Doctor of Humane Letters conferred on him by a neighboring institution, Boston University, on June 2. Presented by B.U. President Harold Case, the citation read: “Your vision and skills are providing outstanding opportunities for higher education for worthy youth; as director or trustee of many organizations, your faith is being translated into practical deeds and human relations in this region are improved as a result.”

Two weeks later Carl was principal speaker at the centennial celebration of Delta Upsilon Fraternity at Colby College, Waterville, Maine, and in his charge to the graduates at Northeastern on June 22, Carl noted that “whenever a nation is under attack or in distress, there always is a tendency to impose regimentation on society . . . but authoritarian rule is in direct contradiction to the vigor and vitality of the American ideal. The strength of the American ideal in every phase of our life has been in its variety.” The new \$1,500,000 library building was put into use this summer at N.U., and on August 26, Carl broke ground for a new modern physical education plant—the fifth building in Northeastern’s development plan.

Aleck Yereance, I, and his wife became grandparents for the fourth time on July 29, when their daughter, Jean, had her first son after three daughters.—A welcome late July visitor at the Chamber of Commerce in Gardner was George Forristall, II, who advised me that he is no longer with Harry M. Frost Advertising, Boston, so his home address should be used for mail: 118 Withington Road, Newtonville 60, Mass. By contrast, however, I happened to be on my vacation in late August when Walter Welch, VI, dropped in to say “hello” and I hated to miss the call.—Frank Osborn, III, although he wasn’t able to attend Alumni Day, had the pleasure of attending his son’s graduation from Vineland, N.J., High School on June 9. The Osborns’ daughter has just finished her junior year at Connecticut College. Frank flew back to Chile in mid-August to continue his work there with the Andes Copper Mining Company.

John Herlihy, II, for the Boston Edison Company, received an award from class-



mate Carl Ell, on behalf of Northeastern University, "for forty-two years' service to education as co-operative employers." In the Medford, Mass., *Independent* of May 29 there was a series of tributes to directors of the Lawrence Memorial Hospital there. Among those honored was John, who with his wife, the former Mabel Ivers of Lynn, has lived in Medford for 32 years and raised two sons and a daughter there.

Had several cards from Venice, Interlaken, and contiguous counties from Jim Duffy, VI, during the summer. From Venice he wrote: "I asked my gondolier to sing 'The Cardinal and the Gray,' but he didn't know the words, so we settled for 'Funiculi, Funicula.'" Another: "If I let my beard grow, they would take me for a goat the way I've been scampering from crag to crag. Eleven thousand feet seems to be tops for the mountains here around Interlaken—Eleven is tops in more than mountains." There'll never be another Jim.

Johnnie Scoville, IV, of the firm of Sanderson and Porter, Manhattan consulting engineers, is busy now in connection with the survey of physical and economic aspects of the City of New York's waterfront being conducted by Sanderson and Porter at the direction of the New York State Crime Commission. The purpose of the physical survey is to determine whether there is any relationship between the construction, condition, and location of various piers and waterfront crime. This statistical survey is considered important because nothing of its sort has been attempted to trace whether the Port of New York is actually losing competitive cargoes.

A card recently at hand from Jim and Toni Campbell, I, from Cape Henry, Va., where they were "combining an inspection trip to one of Eadie, Freund and Campbell's housing jobs with a sight-seeing trip, which will include historic Williamsburg after having had a wonderful trip down the Delaware peninsula."—For the umpteenth straight time, Johnny Bigelow, IV, city engineer at Marlboro, his native city, was installed secretary of the Marlboro Rotary Club.

From now on, better address these three classmates as: Perley K. Brown, XI, 358 Bridge Street, Manchester, N.H.; Colonel Henry C. Davis, 1605 Bayside Drive, Corona del Mar, Calif.; Howard B. Knowles, V, 1209 Calle Del Rancho, Albuquerque, N.M.

More and more favorable endorsements of an "off-year" get-together of the Class of 1911 are at hand, so I have definitely requested the Thompsons at Snow Inn, Harwich Port, Cape Cod, Mass. (where we have a definite reservation for our 45th in June, 1956), to make reservations for a 1911 get-together there during the third week end in June, 1953—which will be a week later than Alumni Day. So jot down these dates: June 19, 20, 21, 1953. Details later. See you there, I hope, and in the meantime if you are in or near Cambridge on the 11th day of the 11th month Friday, November 7, 1952, drop in at Walker Memorial, M.I.T., for our annual "Seven Come Eleven" class dinner.—ORVILLE B.

DENISON, *Secretary*, Chamber of Commerce, Gardner, Mass. JOHN A. HERLIHY, *Assistant Secretary*, 588 Riverside Avenue, Medford 55, Mass.

## • 1912 •

The 40th reunion of the Class of 1912 was by far the best we have ever held. Snow Inn at Harwich Port was a happy choice for the location. Its spacious living rooms and grounds, its excellent meals, and splendid facilities for bathing, fishing, golf, shuffleboard, and sailing, and its central location for antique shopping and sight-seeing, all contributed toward making an ideal setting for the reunion. But it was the presence of the old class spirit against this background that made the reunion such an outstanding success. We are all getting older, and some of us are getting balder, grayer, and heavier, but as a group it appears that we are now more congenial and there is more good fellowship than at any time in the past. These reunions, which provide opportunity for the renewal of old friendships, the exchange of news and greetings, reminiscence about old times, and discussions of the future, will linger long and pleasantly in the memories of all those who participated. All of this goes for the ladies as well. There was the same evidence of pleasant companionship and cordiality in the large feminine group. It all added up to a wonderful occasion.

Arrivals at the Inn began Friday afternoon, June 6, and by the time the lobster dinner was served in the evening, there was a large group present. All day Saturday new arrivals kept coming in. Saturday afternoon a splendid group picture was taken on the lawn. This was followed by a lively cocktail party at the bathhouse on the shore. The Class Dinner, which was the climax of the reunion, was held Saturday evening. After a splendid meal, at which Bill Bird distributed toothbrushes to all the guests, short talks were made by Kebbon, Shepard, and Hunsaker. Shepard read letters and telegrams of regret and good wishes from Charles Cary, Joe Champagne, L. T. Cummings, John Hargrave, Jerry Keith, Ted Marceau, Edward Mason, Hamilton Merrill, Bernard Morash, Lawrence Mowry, George Rhodes, John Shore, and Bob Wiseman. Then the crowd broke up into small groups which had their own small reunions. On Sunday, the exodus toward Boston and toward home began, and after Sunday dinner the crowd was pretty well thinned out. Monday was Alumni Day at the Institute. One of the features was the special showing for '12 men of the new Sloan Building by Weenie Schell who can be very proud of his new facilities. The Class was honored at the Alumni Day Luncheon in the Great Court by having reserved seats near the head table. In the afternoon many attended the reception given by Dr. and Mrs. Killian. There was a large '12 turnout at the Alumni Day Banquet at the Statler, where again seniority assigned us seats near the speakers' table. At this final event, enthusiasm was still so high that the 23 men present signed an appeal for another off-year reunion to be held in 1954. It looks as though we shall now have to make plans for this event.

Sixty-seven members of the Class were present, as well as 44 wives and five sons and daughters, making a total attendance of 116. Those present for some or all the events were: Andrew F. Allen, XI and VII, Richardson Ayres, I, Frederick W. and Mrs. Barker, X, John L. and Mrs. Barry, VI, Harvey S. Benson, II, William C. and Mrs. Bird, I, and daughter, William A. and Mrs. Canaday, II, Charles H. Carpenter, II, Henry W. and Mrs. Coddington, VI, William L. Collins, XI, James A. and Mrs. Cook, VI, Randall Cremer, I, William S. Crest, VI, Philip W. and Mrs. Dalrymple, II, Harold W. and Mrs. Danser, VI, Albion R. Davis, II, Ernest W. and Mrs. Davis, VI, Marcel Desloge, IV, Ernest W. and Mrs. DeWitt, II, Frederick H. and Mrs. Dierks, II, and son, Charles E. and Mrs. Dodge, I, Pierre and Mrs. Drewsen, X, Carlos P. and Mrs. Echeverria, II, Archibald M. and Mrs. Eicher, XI, David Follett, Jr., III, Abram J. and Mrs. Freedman, XI, John C. Freeman, VI, Albert G. Gale, I, Page and Mrs. Golsan, VI, Luis R. and Mrs. Gonzalez, XIV, Walter P. and Mrs. Green, I, Norwood A. and Mrs. Hall, VI, Hugo H. Hanson, X, Jerome C. and Mrs. Hunsaker, XIII-A, Charles C. Jones, I, Milton and Mrs. Kahn, X, and son, Eric Kebbon, IV, John H. and Mrs. Lenaerts, VI, William C. Lynch, II, Harold C. and Mrs. Mabbott, II, Harold G. and Mrs. Manning, X, Charles D. McCormack, I, Clarence McDonough, I, Nicholas T. McNeil, I, Harold D. and Mrs. Mitchell, X, Wallace J. and Mrs. Murray, X, and daughter, Jonathan A. and Mrs. Noyes, II, John M. Pettingell, I, Jabez H. and Mrs. Pratt, X, John W. and Mrs. Raymond, Jr., I, Clarence K. and Mrs. Reiman, X, Wilbur T. and Mrs. Roberts, I, Antonio S. and Mrs. Romero, I, Charles B. and Mrs. Rowley, II, and daughters, Willis R. and Mrs. Salisbury, II, Erwin H. Schell, II, Frederick J. and Mrs. Shepard, Jr., VI, Cyrus F. and Mrs. Springall, IV, George M. and Mrs. Sprowls, VI, Guy A. Swenson, IV, Bates and Mrs. Torrey, Jr., X, Charles L. and Mrs. Tuler, -VI, Cecil B. and Mrs. Vaughan, II, Louis S. and Mrs. Walsh, X, Charles W. Webber, VI, Lester M. and Mrs. White, X, Raymond E. and Mrs. Wilson, II.

Your Assistant Secretary took over six dozen photos at the various events, including 10 at the dinner Friday evening, 15 around the grounds Saturday, 16 at the class dinner Saturday evening, 22 at the Alumni Luncheon Monday, and 10 at the Alumni Banquet Monday evening. Arrangements have been made with a local studio to make prints for all who wish them at seven cents each. Inform Lester White of the number you desire from each group and he will make the best selection he can.

One of the subjects which brought out considerable discussion at the reunion was the original number of graduates in the Class. Thanks to John C. Freeman, who produced a graduation program, we can now settle all arguments by giving the official figures. These are: Ph.D.'s—6; M.S.'s—Course I, 3; Course III, 2; Course IV, 4; Course V, 3; Course VI, 2; Course VII, 2; Course XI, 2; Course XIII, 4; B.S.'s—Courses I and XI, 1; Course I,

53; Course II, 47; Course III, 21; Course IV, 21; Course V, 7; Course VI, 52; Course VII, 4; Course VIII, 2; Course IX, 1; Course X, 31; Course XI, 12; Course XIII, 3; Course XIV, 3. Grand total: 286. Keep these figures handy for future reference.

Four reunion letters sent out by Albion Davis were returned by the post office. Will anyone having current information about Harold K. Smoot, last address Mexico City, Captain Phillip G. Lauman, Washington, D.C., Harry H. Catching, Lexington, Ky., or Juan Garza, Monterrey, Mexico, please inform us. Greeting cards with best wishes, signed by a large group of their friends, were sent to Ted Marceau, Clearwater, Fla., and Bernard Morash, Toronto, Canada, who were prevented from attending by personal or family illness. Credit for making the excellent arrangements and for taking care of the publicity which brought out the crowd goes to Albion R. Davis and Ernest W. Davis, the Reunion Committee. The thanks of the entire Class are due them for a splendid job well done.

We record with sorrow the passing of Fred K. Learoyd, II, on March 17, and David Dasso, II, on May 18, 1952. We shall have more information about Dasso in the next issue of *The Review*.

Raymond E. Wilson has agreed to help in rounding up class news, especially in the eastern states. Please co-operate with him as well as Fritz Shepard and Les White in making this column in *The Review* your column. — **FREDERICK J. SHEPARD, JR., Secretary**, 31 Chestnut Street, Boston 8, Mass. **LESTER M. WHITE, Assistant Secretary**, 4520 Lewiston Road, Niagara Falls, N.Y. **RAYMOND E. WILSON**, 8 Ogden Avenue, Swarthmore, Pa.

### • 1913 •

Let Reunion Chairman Bill Mattson, I, kick off: "We're off to a good start! Remember that slogan '13 in '53.' Then mark these dates on your new 1953 calendar — June 12, 13, and 14. On those days — Friday, Saturday, and Sunday — in June next year your Class of 1913 will have another of its famous reunions. The location has been definitely selected: Oyster Harbors Club, the most popular place for class reunions within hundreds of miles of Boston. The Oyster Harbors Club has been the scene of many M.I.T. reunions. Several classes have gone there again and again, and all comments have been most favorable."

Our own Zenas Crocker, who has retired from business, has a beautiful home at Oyster Harbors, a stone's throw from the Club. He will be our resident manager for the reunion. "Why hasn't 1913 come here before?" asked Zenas when Bill Mattson visited him in making final and complete arrangements at the Club. "You come here once and you'll hold all your future reunions at Oyster Harbors. It has everything!" said Zenas. At the 1913 class meeting at the Statler Hotel, just before the Alumni Banquet on June 9 this past summer, the Reunion Committee reported many of the details. Our classmates who were at the meeting were enthusiastic. They voted to include our families, approved the arrangements as

outlined (also the costs), and all promised to attend. Reread your class notes in the July Tech Review. Note those from a distance who write they plan to be at the reunion. We want you with us. It will be an investment of your time, effort, and money that will pay worth-while dividends for years to come. Get on the 1913 bandwagon now; and remember, "'13 in '53."

Class attendance on Alumni Day last June was large, looking forward to our 40th reunion next June. Present at the Statler Hotel were: Achard, Cameron, Capen, Crost, Cushing, Eichorn, Flanders, Glidden, Gustin, Hirst, Kennedy, Macdonald, MacKinnon, Mattson, Murdock, Muther, Rollason, Russell, Sage, Terry, R. C. Thompson, Townsend, and Weeks, all of whom attended dinner. Bob Weeks's sister Dorothy and Mrs. Walt Muther joined us for a cocktail.

Dean Hildy Carlson, VI, of Boston University College of Industrial Technology: "I endorse your second paragraph with respect to the reunion and trust that we can make it an even greater success than the last one. I have just returned from Washington where I had dinner with General Albert M. Jones (Tom), Class of '13, to whom you will remember the Class sent a telegram on the occasion of our 25th anniversary. Tom is now completely recovered (he spent the war in a Jap prison camp) and is acting as chairman of the Army Promotion Board in Washington. He told me he was leaving next week for a confidential mission of some importance to Mexico, following which he will retire some time this coming July. However, retirement to him only means more work, since he is taking on the job of trouble shooting for the Philippine Airline, which operates between the Philippines, down through Asia, and around into Spain. However, he says that he does not expect to work too seriously at it, since he has a lot of fishing to catch up with. You will also be interested to know that Harold Leathers'14 is living in Hingham, Mass., in a house built by Lincoln's grandfather. His three daughters are now all married, and he and his wife, Claire, live in the Lincoln house, which is crammed full of colonial antiques. If anyone happens to be down that way, I am sure he would be glad to see them, and if you can find the one comfortable chair in his house, you could spend many interesting hours chatting with him concerning former M.I.T. students. When he reads this, he will probably take exception to the 'comfortable chair,' but I know you have been in those antique houses and know whereof I speak. As for me, I am planning to go to the Rotary International Convention in Mexico City as a delegate from the Boston Club." I hope that Hildy had the good fortune to encounter Harold Crawford, IV, in Mexico City. Harold sent this clipping from his Walla Walla, home-town paper: "The long arm of coincidence stretched forth not long ago and tapped Harold E. Crawford, Walla Walla Rotarian and architect, on the shoulder. . . . In Mexico City for the Convention of Rotary International, the Crawfords signed up at headquarters for participation in a hospi-

talities plan conceived by the Mexican hosts whereby those visitors who wished might be invited to buffet suppers in Mexican homes preceding the formal ball concluding the convention. The Crawfords, assigned to a certain home, arrived by taxi, met their host and hostess and Harold joined some of the other guests in the library. He noticed they were idly turning the pages of an old college annual on the desk and his host laughingly pointed out his own picture on one of the pages. Harold, having taken no particular part in the conversation up to that point, flipped a couple of pages and pointed to still another picture with the remark, 'Well, what do you think of that young fellow?' Everybody gasped in amazement. It was Harold himself. He and his host had been classmates at M.I.T. back in 1913." Harold appends: "My 'unknown host' was Manuel A. Hernandez, Course I, who says he will meet us at the 40th reunion next year."

Lonnie Mutersbaugh, I: "Sure would like to attend that reunion but that is too far away for me to tell anything about. The way Truman is going now I doubt if many of us have enough money left with which to make a trip that far. Contracting here is coming to a standstill due to the restrictions on materials and I guess that some of us will have to go to selling peanuts before long." Don't give up Lonnie, "While there's life there's hope." Bunny Brett, I: "I am here in New York at the same old stand, doing the same kind of business, sales engineering, as I have for many years. My partner in business passed away a little over a year ago and I have had to assume full responsibility since then. We are known as Brett and Company, Inc. Our address: 75 West Street. So drop in when you get down this way. For my extracurricular work, I help steer the ship of state at Teaneck, N.J., my home town. I have served as a councilman for about six years with two more to go, and I put in four years as mayor. When this stretch is finished I expect to 'let George do it.' It's been very interesting work and, next to fishing, is my favorite sport. I have just returned from a 'Grand Tour' of Florida, my first offense, and I liked it enough to want a repeat, but that will have to wait until next year. I'm looking forward to our class reunion next year and am sure it will be a large party." Be sure, Bunny, that you plan to fish on Cape Cod next June.

Max Harrington, XI: "Was made division engineer, structural, in the Construction Engineering Department of Detroit Edison Company recently. Like all the larger utilities, we are building and enlarging our power plants as fast as possible, and the supply of steel will allow." From Ed Bridge, IV, busy Boston architect: "Going strong as the 40th reunion approaches. Very busy with buildings throughout New England. One is a large church in Westerly, R.I. Dedicated another in my home town last Sunday. Leave here in an hour to see one nearly done in Whitman, Mass. Another went out for bids last Thursday." Gene Burrell, II: "You will see by enclosure that Engineer Thomas Byrne is calling an organizational meeting for February 7 to



hear Secretary Severance's '38 at Fort Worth. We look forward to the 40th reunion and do hope we can be present. Possibly drive all the way there in our new Packard, even from 'cow town' where the West begins. The big stock show is in full swing and you never saw such a friendly people as in Ft. Worth. Why not come out sometime and see the fastest growing cities in the U.S.A. — here in Texas. Have remarried again and the Lord has blessed us in a thousand ways. Trust in Him." Nice going, Gene, do be with us next June.

Allison Butts, III: "I really have no news at present, but I am planning to attend our 40th. It should be a great event. In February I completed my two-year term as chairman of the Mineral Industry Education Division, American Institute of Mining and Metallurgical Engineers." On the heels of Allison's letter came this bulletin from Lehigh, at Bethlehem, Pa.: "Allison Butts, professor of electrometallurgy, today was named head of the department of metallurgy at Lehigh University. The promotion, announced by President Martin D. Whitaker, will become effective August 1. Professor Butts came to Lehigh in September 1916 from the United States Metals Refinery Company where he served as research chemist for three years. A graduate of Princeton University, he also received his science degree from the Massachusetts Institute of Technology. Long active in numerous technical and learned societies, he published with Bradley Stoughton [196] a volume entitled *Engineering Metallurgy* in 1926. He is also author of *Textbook of Metallurgical Problems* published in 1932. He served as associate editor of *The Mineral Industry* from 1916 to 1927. For many years, he served as consulting editor on metallurgical terms for Webster's *New International Dictionary* and as an abstractor for *Chemical Abstracts*. He has contributed articles on copper and metallurgy for the *Encyclopedia Britannica* and the *American Annual*. At present, he is editing material on copper in the American Chemical Society's monograph series. He has edited *Methods in Non-Ferrous Metallurgical Analysis*. He has been vice-chairman of the mineral technical division of the American Society of Engineering Education and holds membership in the Electrochemical Society and the Institute of Metals of Great Britain. He was one of 15 judges of papers on arc-welding in a nation-wide contest sponsored by the James F. Lincoln Welding Foundation in 1943." It looks as if we'll have a scholar in our midst next June.

Howard Currier, II, newly retired: "This is mainly in response to the request noted in the last Technology Review, from your column, as well as recent letter from Bill Ready asking for letters to you. This will also be a convenient opportunity to get an address change on the books. Guess I wrote you some time ago, shortly after the first of the year, I think, covering my change to a retirement status; I am beginning to like the setup, after a period of several months to get myself reoriented to the new scheme of things. Still have to live hereabouts be-

cause of some real estate investments and other interests, but hope to get out to California 'for keeps' before too long. In the meanwhile, my new address will be 15444 Gilchrist Avenue, Detroit 27, Mich. As to the 40th reunion, I am all for it and will attend unless bedfast with a broken leg or some other catastrophe. Might be the last chance to see many of the old gang, especially with a move to the West Coast in mind." Vernon G. Kay, VI, development engineer: "Wish I had something interesting to write but my life is too uneventful. Still at Sears Roebuck in Chicago."

Ed Gere, I, retired career Army Officer: "Hope to get back to the Adirondacks next summer and possibly a trip to Boston. In the meanwhile I am enjoying mild weather and am active enough to help my son build a house he hopes to sell and later go into contracting. My younger boy expects to enter some college out here next fall to take aeronautical engineering. I have hopes we can find a way to get him to Tech, at least for his last two years. He is a glider enthusiast, having gotten his pilot license at 15 and having won the bomb drop in the meet at San Diego the past two years. My older son has made me a grandfather of a fine girl and I am looking forward to others from my daughter who was married last summer. It would be grand if the wife and I could join you in the spring of '53." Si Champlin, V, writes in contemplation of sweet retirement: "You may recall that last year I was all aglow over the discovery of Chico, Calif. We went there again in November, just to check up our recollections, and found we like the place even better! Now we are getting the daily paper so that we can spend an hour or so there every day, let the wintry Cincinnati winds howl as they will. Makes good dreaming, even though we may not succeed in retiring to that perfect little house of our plans."

Three classmates passed away this last summer. Mrs. Norman Clark wrote from Cincinnati in June: "This is to tell you that Norman [X] passed away on May 12, after a fall on the 3d. He fractured his hip and complications arose that caused his death. He had been an invalid for many years due to 'sleeping sickness,' and not been active in a long time. But he never lost his interest in all things around him. And M.I.T. was still close to his heart." Harry Peck, II, died at Phillips House, Boston, on August 25, where he had been for three weeks, taking treatment to reduce very high blood pressure. Classmates attending the funeral held at his home in Sharon, Mass., were: Brewster, Capen, Farwell, Pinnock, Russell, all accompanied by their wives, and your Secretary. The Boston *Herald* of August 27 said: "He received the degree of LL.B. from Northeastern Law School, was a member of the bar of Massachusetts and Rhode Island and had been admitted to practice before the U.S. Patent Office and the U.S. Supreme Court. He was for many years in private practice and had been patent attorney for the Grinnell Corp. of Providence, for the past 25 years. Mr. Peck was a captain in the Aviation Section, Signal Corps, World War I.

He was a member of the Sharon School Committee for six years, first president of the Sharon P.T.A., judge advocate and chairman of the Veterans Committee and a member of the Grade Crossing Committee and the American Legion. Also, he was a 32d degree Mason, and a life member of Blue Hill Lodge, Charles River. He leaves his wife, Carolyn Ford Peck; a daughter, Mrs. Walter Kenyon of Fairfield, Conn., and two sons, Robert D., and Randall H." Hap was my competent patent attorney and good friend for the past 25 years. Looking back over the years of our association, as it is natural to do at a time like this, many instances crowd on my memory to prove that Harry had truly outstanding qualities of mind and heart. On Labor Day Bob Portal, VI, died very suddenly while watching television at his home in Belmont, Mass. He had been troubled by some high blood pressure, which evidently had not been regarded as serious. Al Townsend and Charlie Thompson attended the funeral at Belmont. Bob was treasurer and sales manager for Auto List, Inc., Boston. He was an enthusiastic supporter of and good company at class gatherings in Boston. We shall miss him. — FREDERICK D. MURDOCK, Secretary, Murdock Webbing Company, Box 788, Pawtucket, R.I.

#### • 1914 •

Just 38 years ago, we were the principal figures at commencement time with graduation taking place in the old Rogers Building, followed by a festive evening in Symphony Hall where we were inducted into the Alumni Association. Alumni Day now is the occasion for celebration and the renewing of friendships. Fourteen, as usual, played its part, visiting at the Institute, attending the Technology luncheon, our own party at the Engineers Club in the afternoon, then the Alumni Dinner at the Statler. At one of these events, your Secretary saw Ross Barratt and his son, whom Ross was trying to interest in the Institute. Ross himself has closed his New York office because he has so much architectural business in his home town of Southport, Conn., that he had difficulty in getting to New York.

Ernest Crocker, Don desGranges, Dean Fales, Leicester Hamilton, Art Johnson, Phil Morrill, Rus Trufant, Harold Wilkins, Clarke Atwood, Gardner Derry, Dana Mayo, Hank Merrill, Frank Dunn, O. C. Hall, our Class President Charlie Fiske, and your Secretary were also present.

Gerry Blakeley had signed up for all events but his wife had to be hospitalized just at that time, which made it impossible for him to attend. Herman Affel has often been with us, but this year found him in Korea on a special assignment on problems involved in the utilization of electronics by the Army. Affel is assistant vice-president of the Bell Telephone Laboratories at Murray Hill, N.J., and just before leaving for the Far Eastern Command, conducted a 10-day symposium on transistors for a group of 25 domestic and nine foreign companies.

Another regular attendant who had planned to attend but who missed because of a business conflict was Alden

Waite. Alden did come to Boston a few days later and your Secretary had a fine visit with him. The big news, however, was that after these many years with headquarters in Washington, D.C., Alden moved this summer to San Antonio, Texas, sometimes referred to as the post of retired generals. Alden will retain, however, his association with R. S. Aries and Associates but will confine his activities largely to the Texas and Gulf area.

Dana Mayo's son, who graduated from the Institute this year, has gone to Philadelphia where he has a fellowship in chemistry at the University of Pennsylvania. Chet Davis' son, Chet, Jr., is a Republican candidate for Governor's Councilor in the sixth Massachusetts district. Chet, Jr., is a Harvard graduate and a member of the Massachusetts Bar.

A fine letter was recently received from Clarence Rogers. For over 20 years, he has been located in Atlanta, Ga., representing principally the Edwin L. Wiegand Company of Pittsburgh as their sales engineer. He, however, heads his own firm of C. B. Rogers and Associates where, at 1000 Peachtree Street, he would welcome a call from any '14 man passing through Atlanta.

E. W. Larkin, who for many years has been in Springfield, Mass., with F. T. Ley and Co., public utility engineers and contractors, has established his own company under the name of E. W. Larkin and Company, but still remains in Springfield.

Dick Paris, who for most of the time since graduation has been located in Washington as an attorney-at-law specializing in patent and trade-mark practice, is right on the job in his entry in the grandfather contest. He writes that his only child, a daughter, graduated this June from Connecticut College for Women and soon after married a Wesleyan graduate, so Dick can hope, can he not? Incidentally, your Secretary can now claim four grandchildren, with each of his own two children having a boy and a girl.

Jim Holmes, who has been making frequent trips to the Pacific in connection with government projects there, has reversed his procedure this summer and has spent three months in Europe. Ross Dickson writes that Rucker Bristow was in New York at the end of July and greatly surprised him by telling him that he has taken up flying as a hobby. He, however, relied on the commercial lines on his trip up from Florida.

The *Bulletin* of the Philadelphia Chamber of Commerce features a speech given by George Whitwell at the Pennsylvania congressional dinner of the Chamber of Commerce of the United States in Washington. It is not hard to guess from the speech that George is still well right of center.

The Manchester, N.H., *Union Leader* features an interview with Dean Fales. While auto safety is the primary subject, many side lines are included. For example: "In his shop in back of the garage, there hang a couple of 'art' calendars. You know the kind. 'I keep 'em for my students who drop in here,' he grins." Same old Dean, and as the article says, "He is having more fun living here in retirement than a kid when school's out."

On July 14, we lost one of our active classmates, David Lee Sutherland. Jim Reber writes that Dave spent eight months of last year at the Northwestern Hospital in Minneapolis, and last December returned to his chalet, "Dajaramabu," at Two Harbors, Minn., where he convalesced until his death. Dave prepared at Minneapolis Central High School and after a brief stop at Williams College, entered the Institute. During his undergraduate days, he was associated with Tech Show, *Technique*, track and cross-country teams, Class Day Committee, Osiris, Beaver, and Walker Clubs, Theta Tau, and Chi Psi. In 1923 he married Beulah M. Crocker, who died in 1946. In 1950, he married Alice Robertson who survives him as does one daughter by his first marriage.

Dave served abroad in both world wars, as an infantry captain in I, and as a colonel of engineers in II. He was active in many community groups and served as an officer or trustee in several of them. His business life was associated with engineering and his last association was the operation of his own consulting office. — H. B. RICHMOND, *Secretary*, 275 Massachusetts Avenue, Cambridge 39, Mass. ROSS H. DICKSON, *Assistant Secretary*, 126 Morristown Road, Elizabeth, N.J.

## • 1915 •

Hello, classmates! I am glad to tell you I am back in business after having missed giving you notes the last few months at the end of the previous year. It aroused many inquiries, which shows proudly that we have a large reading public. Your response to class dues was wonderful, really. I can't thank each of you individually, but to you all, thanks, and many blessings for your splendid support of the Class. It puts our exchequer in pretty good shape.

We were well represented at Alumni Day and the cocktail party, and Alumni Banquet at the Statler on June 9, with these men from far and wide: Herb Anderson, Marshall Dalton, Fannie Freeman, Gabe Hilton, Parry Keller, Horatio Lamson, Larry Landers, Archie Morrison, Wally Pike, Pete Munn, Frank Scully, Henry Sheils, Speed Swift, Fred Waters, Easty Weaver, Max Woythaler, and myself. It was a gay get-together, and we all left with our steins, with a fine feeling for M.I.T. and 1915.

A change of address notice from the Alumni Office told of Mary Plummer Rice moving from New York to the West Coast, so I wrote her and she answered, charmingly as ever, as follows: "It is a simple story — my last child, Deane, who is 19, was ready for college, wants to be a doctor, and dislikes the snow and ice of New York winters as much as I always have. So with 10 long years ahead of him, if he ever makes the grade, we decided San Francisco would be a welcome change. He is a freshman at University of California at Berkeley. After four years at a small Episcopal boarding school in Hartford, is it any wonder he is floundering in a state college of 15,000? He has been medically discharged from R.O.T.C. and isn't very strong. In the meantime I am enjoying the hospitality of one of my

daughters and her family, and two darling granddaughters can make life very charming. By summer we shall have a house of our own across the Bay.

"Last week I had an announcement of a luncheon at the San Francisco M.I.T. Club. Do you suppose I would have been shut out if I had been so bold as to attend? Do you remember that hot June evening in New York? I still laugh over it and enjoy the picture the men sent and their amusing messages.

"The last years in New York I was working full time — five days and evenings — as a Red Cross volunteer in veterans and state mental and tuberculosis hospitals — work which I loved, especially the mental hospital on Ward's Island. I hated leaving the work but am enjoying the T.B. wards here at the Marine Hospital three days a week nearly as much. It keeps me from getting too homesick. San Francisco is such a beautiful scenic city; it would be difficult not to love it."

Our '15 people do get around. First, from Florida in the winter, Clive Lacy wrote: "It is warm and sunny in Orlando, Florida. Wishing you the same." Then a little while later, on a pretty picture postal from Copenhagen, Denmark, he wrote: "We have visited the North Cape, seen the midnight sun, and traveled through Scandinavia. Leaving today for Holland, and home in April." Nice for Clive, but I am sure you will agree he deserves it.

Then Abe and Haya Hamburg, from their seven-week cruise to South America, aggravated us with this letter written on board the Moore-McCormack's S.S. *Argentina* on March 17: "This sea voyage, for an unknown reason to myself, has robbed me of any desire to write. There are about 425 people that may be disappointed. I don't know. I'll try to explain if I can when I return. But I can't face Azel Mack with his admonishing look. I'd rather face death. So here it is: The weather, the sea, the sun, the breezes, the fellow travelers, the food, the ship personnel, the activities, the ship itself, all are perfect. You can do anything you like — take part in any activity or be inactive, and no one will interfere. There are only about 60 that are taking the entire cruise. Another 200 are Brazilians and Argentinians returning home from business or pleasure trips to the U.S.A. They are all a great lot of people. I am writing a day out of Trinidad. A week from this morning I will mail this letter from Rio de Janeiro. This trip is to celebrate our 30th wedding anniversary which falls on April 2." Everybody will rejoice that Abe and Haya could have such a splendid 30th anniversary celebration.

Weare Howlett's Cape Cod place at South Yarmouth was a meeting place this summer for Hank and Mrs. Marion and Ken and Ester Johnson, who were visiting on the Cape. A "Scotch" six-some!

Some class marriages, with our best wishes! On Saturday, the 19th of April, in Christ Church, New York, Charlie Williams was married to Mrs. Mary Rutgers Sage Lawrence of Park Avenue, New York. In Grace Church, Vineyard Haven, Mass., early in the summer, Robert A.



Schmucker's son, Robert A. Jr., '39, was married to Ruth Thompson. The Class's congratulations to these two happy couples.

Bill Brackett is now in his own business, the William H. Brackett Company in the Park Square Building in Boston, as a manufacturer's representative for power plant and electrical equipment and electric motors. All the best to Bill for success! This doesn't keep him, however, from enjoying a seagoing summer aboard his good-looking yacht, *Samarkand*.

Frank Scully has completely recovered and is around again and busy as ever. Frank writes this fine letter which tells you a lot about our old quarterback: "I have had a small class meeting of my own. The week of March 24 I spent at Boca Raton in Florida attending the meetings sponsored by N.A.M. While I was enjoying a Planters Punch at the bar, I heard the bartender say the word Massachusetts. That gave me the clue and we both discovered that we both remembered very well the M.I.T. 1915 reunion held at Falmouth in 1946. He remembered particularly those whom he saw the most of, naturally. The only reason he remembered me was that his name is the same as mine. He did remember you and he questioned me, 'How is that fellow who works for Gillette?' I wonder if he could mean Louis Young (he should from Louis' attendance record with him).

"As long as I am reporting on that incident I'll go on with some more news. My family is really starting to grow up, although I cannot report on being a grandfather yet. In fact, none of my youngsters has married. Frank, Jr., and Bob got through Harvard last year. Frank, Jr., is with me in the Scully Signal Company and is now assistant treasurer. Bob is having a very interesting experience. He is with the American Express Company, in their banking division, and now is located at an airfield in England—Manston, approximately half way between Canterbury and the Channel. The American Express Company does the banking for the Army in many of its activities and they have what amounts to a small bank at the various airfields. Bob is living at Falstaff Inn, Canterbury, built in 1403 (before Columbus discovered America). There are only five rooms in the inn and the main activity apparently centers around the pub downstairs which is very widely known and apparently visited by a number of interesting characters. I have just arranged to provide him with a microphone to go with the dictating machine which he has, so he can put it behind the bar some night and record the conversations. He sends records over to me about once a week which are very interesting, particularly as he felt I would be interested in having some of the people he is associated with talk into them.

"Gail is going abroad for several months. When she was in Paris two years ago I contacted Ken Boynton just in case anything should arise. She was on her own in Paris and it was comforting to know that Kenneth was there in case of any emergency. Fortunately there was none. Peter is in his junior year at Belmont Hill School and, I expect, will be repre-

senting them in the Interscholastic Sailing Championships in Annapolis in June.

"After being in the construction business, the sand and gravel business, shock absorbers, and a few other minor activities, I am immersed in whistles. Business is going along pretty well. Although we cannot advertise and Chevrolet does not even quote it (due to the fact that the **Ventalarm Signal is not on any other car of General Motors**), we do have standard equipment on Chevrolet. Our big business is in the fuel oil field where probably more than half of the homes burning oil are equipped with the Ventalarm Signal on the fuel oil tanks. We are now getting into the railroads on the Diesel locomotives, where an overflow of one second's duration may mean a spillage of four gallons.

"We have some interesting new developments which we hope to market in the near future. We have some new oil burner controls, both for industrial and domestic burners, which are operated by the sound of the flame. This is an entirely new method of control. We believe it has a number of advantages over any other method now utilized. For a Course I man, I have certainly strayed from the path, but frankly that course in hydraulics was probably the most important course I took at the Institute, as far as affecting my activities after graduation.

"As a former secretary, I realize your problems, and furthermore I think you have done more for the Class of 1915 than any other individual."

We didn't have our annual western summer trip this year so we missed the usual visits with classmates en route, but in Connecticut we saw Alan Dana who is chief engineer at the Kerite Company in Seymour, Conn., and lives in the next town, Ansonia. Alan took Fran and me home to meet Mrs. Dana and his son, Alan, Jr., who is a sophomore at the Institute. We were impressed by a big pool filled with around a hundred goldfish of all kinds, which Alan had built in true engineering style, and his unusual collection of Chinese things in his house. The visit was just after he had written us this letter: "I am greatly indebted to you for the Kodachrome prints of myself taken at our 35th reunion. I enclose some pictures I took of Abe Hamburg and Phil Alger. My interest now revolves around the Class of 1955, since Alan, Jr., is struggling to maintain his position therein. I have become a grandfather, which is probably so late that no one is interested, but it is the first time, as far as my experience goes. Good luck to you, and I would be pleased to see you, but don't know when it will be."

On the train from Boston to New York in May, Fran and I met Otto Hilbert on his way to Corning from a visit to the Providence plant of the Corning Glass Company. He had divided the winter between Florida and Mexico, and entertained us with stories of his travels and the many beautiful colored pictures he took. He had just written us before that as follows: "We just returned from three weeks in Mexico where the weather was beautiful with lots of sunshine and no rain. I understand New England and this part of

the country had about its worst winter weather during this time. We did not even know it.

"While in Mexico City we were entertained at the lovely home of Mr. Cummins of Price Waterhouse. He thought he knew someone in about our Class, and who should it be but Ken Boynton. The Boyntons and Cummins were great friends while Ken was in Mexico City. We leave Thursday for a vacation in Florida. By the time we get back we will be looking for spring."

The competition among our increasing number of grandfathers and their growing second generation gets so keen that you will just have to read about them in their letters. For a long time Henry Sheils, with his seven grandchildren led the league, but he is now being hard pressed for that honor. Ray Stringfield, 229 South Normandie Avenue, Los Angeles, writes: "The world simply goes around too fast, and I have had the excuse these last few weeks that I wanted to properly publicize the latest arrival in the family via my youngest daughter, Dorothy Dorn. She's a girl, five pounds, 11 ounces, which they have named Lu Marla after the two grandmothers, and that makes nine grandchildren for us now: four boys and five girls. Have any of the other '15 classmates done any better? In fact the situation has serious aspects. Here we thought we could count on the children supporting us when we became old and broke, and now they are getting so many of their own that I'm afraid we may have to help support them.

"My little rubber factory, Fullerton Manufacturing Company, keeps growing so fast that we have to put all the profits into more equipment, but at least we have a good time making some of the things that a few of the others fall down on, and manage to take out enough salary to keep eating regularly. Doctor says it is too regularly, as my avoirdupois is up to a disgusting 230 pounds.

"You may have noticed that they are having a national meeting of the American Chemical Society in Los Angeles in March, 1953, so someone thought they should nominate a western man for vice-chairman of the Division of Rubber Chemistry and got them to nominate me. However, they also nominated Jim Walton of Boston Woven Hose, M.I.T. '23, so if my worthy opponent gets more votes than I do, the division will still be in safe hands. I expect to attend the division meeting in Buffalo in October, so hope to see some of my friends there and in Akron."

Parry Keller knocks on the door for admission to this grandfathers group, as follows: "I have been very busy during the past year. My work has required more traveling than usual. I will only mention the two trips which impressed me most. Last October I spent some time in Canada and visited the cities of Montreal and Quebec for the first time. While in Montreal I had an opportunity to visit and make a tour about Magill University. It is quite an interesting and large school. Quebec was a most interesting place to me, and I was fortunate to have time enough to see a lot of it.

"Last February I spent two weeks in southern California in the Los Angeles and San Diego areas. A side trip to Tia Juana, Mexico, was an added attraction. Before returning to Ohio, I spent five days out on the Pacific on board the U.S.S. *Princeton* (aircraft carrier, Essex Class) which was a most interesting experience. The weather was fine all the while I was in California and at sea.

"When I see you next I will set them up and we will drink a toast to a very lovely little lady — my granddaughter. She was born in Cleveland, Ohio, March 17, 1952. Her name is Dorothy Jean. The proud parents are Parry, Jr., and Miriam Keller. This event made me very happy." In addition to boasting of this new baby, Parry is editor of the *University Club News*, a monthly paper he puts out for the University Club of Akron, where he lives. From the copies he sends me, I sympathize with Parry, but he is doing a fine job for his club members.

Though not a grandfather (yet), Tower Piza, our perennial bachelor, is a good letter writer. He refers to the Bermuda trip Fran and I had in May to celebrate our fifth wedding anniversary, which was really in October, 1951. It was delightful and we heartily recommend Bermuda to you retired '15 people looking for a pretty place to visit. Here is Tower's letter: "Sorry to have delayed so long with this. My intentions are good but the pen is sometimes in arrears. Please forgive. Hope your honeymoon in Bermuda was a dream of bliss. It is a pretty spot, especially with the right girl. I went at the wrong time of year with the wrong person and in the wrong mood." Tower's reference to his own trip to Bermuda could call for some savory remarks, but I guess we will spare him.

Alton Cook joins the Class: "I have finally joined the Grandad's Club. My daughter Jane produced a fine healthy boy last November, his name being Gordon Wayne Cardoza. Keep up the good work."

With his class dues check, loyal Larry Landers sent regards to old classmates and greetings especially to Henry Sheils for handling the collection of dues. In May from Pinehurst, N.C., Herb Anderson wrote that it was too hot for golf — how he suffers!

Earle W. Brown, 5708 Clover Road, Oakland 8, Calif.: "Best regards to you and all the gang for your June reunion." Ernie Loveland, Box 287, Marion, Mass.: "Many thanks for the fine colored photographs of the last reunion — beg pardon, I mean the 'latest.' They were exceptionally clear and I was glad to get them. Who took them? I know it couldn't have been you as you were in one of them. I'm all right, although pretty tired out."

Gene and Ruth Place would be glad to hear from any of you, or see any of you fellows on the Coast at 2739 Garfias Drive, Pasadena 7, Calif. I am sorry to tell you that Gene has failed a good deal and is now in poor health. He has had a tough time and we are all very sorry for both him and Ruth. I just wish there were something more we could do for them.

The old redheaded pirate, George Rooney, whom we enjoy seeing a lot

around town here, gives me a great boost: "I'm mighty glad to again have the opportunity to contribute my mite to help continue to keep good old 1915 on the high plane you have held it. Good luck and good health!"

Mervin Hart sent his dues from 28 Rue Vineuse, Paris 16, France, so I wrote to Ken Boynton over there to see him for a little reunion of their own. Ken, staunch as ever, wrote: "Upon returning from a trip to Turkey, I found your letter of March 24 with regard to the presence in Paris of Mervin S. Hart. I was very glad to learn about this and immediately got in touch with him, and he joined me for lunch. It seems he has been over here for about two years, but he has been making himself very scarce as far as the American colony is concerned. As for myself, the most interesting thing that I have done lately is to visit both French and Spanish Morocco. I was very impressed with the potentialities of that area. The native life there was something quite new to me, and I found it intensely interesting." Ken's address is 79 Avenue des Champs-Elysees, Paris 8, France.

With no class notes in those final months, good old Ben Neal really became concerned and wrote from Lockport, N.Y.: "What has happened to you? Is your business still haywire, or are you just running out of class notes?" I am glad to reward Ben with a good column this month. Ben's charming daughter Peggy is in Boston again, after a summer of music study in Europe.

Sol Schneider wrote with his class dues: "Regards to Henry Sheils, Ed Sullivan, Wally Pike, and Pirate Rooney." After all the above, unfortunately there are a few sad notes, for which we send our class sympathies to all those families that they touch: Charlie Noyes, 217 Washington Avenue, Manoa, Havertown, Pa., wrote me: "For the past year I have been sick with a weak heart and have had to give up business."

There was the sorrowful passing of these classmates: Julius Kuttner died April 5, 1951; George H. (Brick) Warfield, on August 6, 1952, at Vineyard Haven, Mass.; and Gerard R. Walsh in 1950 (no date given) at State Hospital, Deer Lodge, Mont.

For next month's column I still have interesting letters left that came with the class dues, but there are many months ahead, all the more reason why you should Help Azel. — AZEL W. MACK, *Secretary*, 40 St. Paul Street, Brookline 46, Mass.

## • 1916 •

Here we go again. Settle back in your easy chair and read the first of what we hope will be a series of nine very interesting monthly columns on the activities of those who shared so many moments, joyous and sad, with us so many long years ago. As all of you know, our Class had its 36th reunion last June, and while it cannot be compared with our five-year reunions in terms of attendance and activities, it will long be remembered as the most restful of our get-togethers and one in which our gentlemanly conduct reached a new peak. Our good hostess,

Mrs. Harris, at the Coonamessett Ranch Inn, found it difficult to believe that we were part of the "pleasant" group that had been to the Inn for its 35th reunion the previous year. Tom Berrigan and Jack Hickey might be pleased to know that she remembered them well, not favorably, but well, and was sorry that they were not able to make it this year. Here is a list of those who did attend the reunion at Coonamessett: Charlie Lawrance, Lew Pratt, Al Pettee, Tom Jewett, Jack Burbank, Duke Wellington, Hy Ullian, Dick Berger, Steve Brophy, Hal Russell, Emory Kemp, John Woods, Steve Berke, Ray Brown, Len Stone, Harold Dodge, Herb Mendelson, George Petit, Joe Barker, Bill Barrett, Ralph Fletcher, Theron Curtis, and our own, the one and only, Jimmie Evans. Others who didn't get to the Cape but did get to the Alumni Day activities or the class cocktail party were: Arthur Caldwell, Jap Carr, Percival Gooding, Albert Lovenberg, Shatswell Ober, Doug Robertson, Ping Loo, Joe Minevitch, Izzie Richmond, Steve Whitney, Dick Hunneman, and Jack Hickey. We were pleased to have as our guests at the class cocktail party Mrs. Minevitch, Mrs. Lovenberg, Mrs. Gooding, Mrs. Richmond, Mrs. Berke, Mrs. Hickey, Steve Whitney's daughter Pamela, Steve Berke's daughter Louise, and Jack Hickey's daughters Ruth and Mary Ellen.

Reunion Notes: Herb Mendelson says that this was about the most restful and satisfying reunion of all — he didn't even exercise his tennis racket. He brought his wife up to the Cape to visit her brother at Yarmouth, coming by car rather than as a skipper in his power cruiser, his usual mode of travel to the Cape Cod area. Sun tans were collected by a golf foursome of Peb Stone, Al Pettee, Ray Brown, and Harold Dodge. Not much golf (possibly excepting Peb Stone) but plenty of blue sky, fleecy clouds, and satisfactory side bets. Here is what George Petit had to say about the reunion: "The 1952 interim reunion of our Class at Coonamessett reminded one of a chain reaction. It established the continuity of our 1916 relationship. It was thoroughly enjoyed by all. For the first time since graduation I returned to the Institute for an Alumni Day. Wandering from one laboratory to another trying to comprehend the intricacies of such weird devices as the differential analyzer, the grating engine, and the robot milling machine, I came away sadly convinced that any relationship between my day and the present is purely accidental. But any feeling of frustration prompted by my ignorance of modern science was temporarily dissipated by participating in our Sheraton Plaza cocktail party. For a few hours, at least, I was convinced that my comprehension of modern science had increased tremendously. Next day, however, I was once again my ignorant self. But our gathering at the Cape and our participation in the festivities at Boston were a happy experience. Those of us who have not taken time out to re-establish our ties of the days of yore should try it next year. It is truly a happy break in a routine that will slay us if we don't watch out. It seems certain that these interim reunions will increase in



popularity as the years wear by. They will culminate, I hope, in one tremendous surge to the bar (of private class opinion, I mean) in 1956." One thing that George didn't mention was the apparent pleasure he was getting from a lengthy conversation with Dick Hunneman. It turned out that George and Dick were in the same division during World War I and didn't know it until, at this cocktail party, Dick pulled out a letter which he had received from Ralph Bagby in which Ralph reminisced about World War I and the time that he and Dick met in France. Even after the party broke up, Dick and George continued their discussion on how the two of them together won the big war.

Since we have Dick's permission, it seems appropriate that we include in this column Baz Bagby's letter to Dick: "It seems impossible that we have been out of touch so long. My memory of the last time I saw you is that you were riding the running board of a truck in Meaux, in the summer of 1918. You were headed in the direction of Berlin. 'Member the Hayes Dairy Lunch on Huntington Avenue? It was a door or so from Pierce's or perhaps I should say across the street and up from the Copley Plaza. We used to eat there with Ed Barry, Ingraham, Blaine, and others. What spurs me to write now is that Fletcher listed you as one who might attend the 36th reunion, and I can't make it. Do you live in Boston or thereabouts—Maybe we could have a drink together sometime in June. My daughter Betty is graduating from Radcliffe this year and if our plans jell, I may drive down to haul her junk home. I sold my small manufacturing business last year and would be on the loose, except that in the merger I agreed to stay on until May of 1953. Two of my sons, John and Julian, were in business with me. John opposed the merger and is designing drop forging equipment now; he's talking about moving to California. Julian has agreed to stick it out with me for another year, under a half-promise that he and I may visit Brazil next year. Another son, James, is a freshman at Northwestern University. John went back and finished up at Cornell (mechanical engineering) after the war. Julian went from high school into the Air Force and took some mechanical engineering at N.U. after the war, but didn't finish. He is close to being a genius at low-cost, small-lot production. We are making some equipment for jet engine testing, rather simple stuff, but interesting. Please take the time to write me. I saw an outburst from you a year or so ago which I could have signed, only I'm not that literate." Thanks very much, Dick, for bringing this letter to our attention. Let's hope that Baz will be with us at our next reunion. How about it, Baz?

Back to the reunion again and a report from Ray Brown: "Honorary Classmate: Whoever suggested making Bob O'Brien an honorary member of the Class of 1916 should be commended. He took care of all the one hundred and one details to make us all comfortable so capably and cheerfully that I am sure we all feel we are plain lucky to have him around. Jim Evans *et al.* Please Read: As I was made to faithfully promise, I have telephoned

Moose Jewett at Spencer Kellogg, Buffalo, to tell him that some of his old friends wanted to hear from him, even indirectly. He said he was fine and seemed to be very busy. He said he will try to make a reunion when it is held at a time when he is on the East Coast. He has spent much time on the West Coast. Class of 1902: The Class of 1902 was having its 50th reunion concurrently with ours. We all hope that we may be as active and energetic as these gentlemen when we have our 50th reunion. The best wisecrack of the week end came from a 1902 man. In answer to the question, 'What is the shortest route to Washington?' the reply is: 'Go to Harvard and turn left.' Account of Interesting Activities: It was not only interesting but stimulating to listen to some of the very informal discussions by our classmates on what they are doing. For example: How the Research Corporation eliminated beriberi from Bataan province in the Philippines, by Joe Barker; how to prevent cancer, by Dick Berger; and the theory and practice of granite quarrying by you-know-who. Reunion, 1953: Shortly after my return I saw Bill Leach who spends the summers in Niagara Falls. Unfortunately he was in Oklahoma at the time of the reunion. I told him to do better next year. Also, I have seen Earl Hauman who asked about the reunion, and I think he will be on hand next year if he can possibly arrange it." Very nicely done, Ray.

And now, both Secretaries speaking: We were more than a bit overwhelmed with the beautiful silver cases (for cigarettes or treasures) that we received with ceremony as a surprise at the Saturday night dinner of the reunion. We understand that many of the boys out there—from all over—made contributions for what was announced as "appreciation of the job they have been doing to keep the 1916 class notes consistently the most voluminous of all." So that all may know, the cases are heavy sterling silver from Gorham, 5 inches by 6½ inches by 1½ inches, initial engraved outside with gold plate, inside cover engraved, "To Ralph A. Fletcher (Harold F. Dodge) from the Class of 1916, in appreciation of his leadership, June 1952," and mahogany-sectioned box lining. We want to express our enthusiasm and deep appreciation for these beautiful things and can say in all sincerity that we have already been amply repaid over the years by the generous response to our requests for letters. Ours is really a pleasant task. So, many, many thanks and rest assured we will continue our work with gusto. We acknowledge the help of our secretaries who have helped to keep us going: Bob O'Brien (secretary to R.A.F.) and Ruth L. Stumm (secretary to H.F.D.). As a matter of fact, Bob, as previously reported by Ray Brown, was made a "Junior Member" of the Class of 1916 at the reunion for his tireless work on the secretarial activities. He acted as taker-carer of 1916 wants throughout the reunion and brought with him a collection of files, photographs, and 1916 mementoes for all to see. Hence this word of appreciation to you, Bob, and welcome as a Junior.

And now your Assistant Secretary

speaking: Have you heard the really big news—the front-page news of the reunion? First it seemed to be a rumor, then it seemed to be better than a rumor. Something we didn't believe the first time and could hardly believe the second. But after full investigation it was found to be so. Here it is: Your Secretary has another addition to his family: a new son two weeks old at the time of the reunion. And is he proud of his No. 5! And has he reason to be! So here in print we say CONGRATULATIONS, Ralph, to you and Mrs. Fletcher.

Following the reunion, we received a letter from Dick Berger in which he said, in part: "It was a real privilege to attend our class reunion at Coonamessett Inn. Just being permitted to give my 'spiel' on the subject of cancer prevention gave me a feeling of satisfaction, gratification, and accomplishment." Well, Dick, those of us who were at the reunion and heard your brief talk are the ones who should be grateful. It was very evident to all of us that you have put a great deal of effort and money into your fight to bring to the light the true facts about cancer. You are to be commended highly for undertaking such a program, and may the day not be far off when the true merit of your work will be recognized and mankind will reap its benefits. For those members of the Class who are not completely aware of what Dick is trying to accomplish, we recommend the reading of an article authored by Dick entitled "Cancer Prevention," which appeared in the August-September, 1952, issue of the magazine *Life Today*. Still on Dick Berger, he sent us a clipping from the Bridgeport Sunday *Herald* which was a big write-up about the Barnum Festival held early in July in Bridgeport. In one corner of the page there was a picture of Harry S. Truman, or at least we thought it was he, but the following caption which appeared beneath the picture put us straight: "HST Himself, or at least that is what spectators thought at first glance as they viewed the President's double. He's really Richard Berger." In the picture, Dick had on a very flashy sport shirt and a white fedora. Elsewhere on the page there was this comment: "Dick Berger looked like Harry Truman when Truman looks like Key West."

And now for a few final notes on the reunion. Many of us might have wondered if perhaps Jimmie Evans wasn't going to the dogs when he followed the vaudeville circuit during the summers up in Maine doing six or seven shows a day before returning to Tech for the fall semester, but after his performance at our recent reunion, we wonder if perhaps he might not have been one of the world's finest entertainers if he had followed that calling. With what seemed to be an endless stream of energy, Jimmie led the gang in group singing and when we wanted to take time out for a rest he continued to go on with a solo, song and dance routines, or good wholesome jokes. If you think Al Jolson had music and rhythm in his blood, you ought to see our Jimmie when he leads the group in "Alouette" or "Mademoiselle from Armentières." For many enjoyable and relaxing

moments over the week end, Jimmie, we thank you.

Tom Jewett hadn't been to a reunion since he left Technology and boy did he make up for it this time! We feel pretty certain that Tom won't miss another one. He brought along a photograph which was taken in November of 1915 on the green in front of the Copley Plaza Hotel of all the students at M.I.T. at that time, and many an enjoyable moment was spent at the reunion scanning the photograph and picking out familiar faces. Tom also brought his wife to the Inn for an hour or so on Saturday afternoon, and it was a real pleasure for all of us to meet her. We sincerely hope that we made the right impression, Tom.

In summing up the reunion, it should suffice to say that those who attended had a wonderful time and are even now looking forward to next year and another happy week end. For those that couldn't make it, this is another example of one of the joys of life which has so successfully eluded the grasp of so many. There are many joys which we will never experience in this life; there are others which can be had but only by a little extra hustle on our part. The reunion is one of these. Next year, try a little harder; you'll find that it is well worth the effort.

This past reunion was our first without our class president, Bill Farthing. There's no question about the fact that we missed him and will continue to miss him at all our gatherings. Shortly after Bill's death, we had a letter from Dave Patten in which he wrote in part: "... and no future class reunions will be held, I'm sure, without turning up an empty glass in fond memory of Bill Farthing." Well, Dave, we did just that—turned up an empty glass in memory of Bill, and followed it with a moment of silence in respect for his memory.

Well, the first column of the new season wouldn't be the same if we didn't put in a plug for more news from each and every one of you. There must be at least two or three paragraphs of material which you can send us for the column and which will be of interest to your fellow classmates. The old easy chair has been pretty comfortable as you have been relaxing while reading this column. Now, before you get too comfortable, how about hopping up and getting out your pen and paper and sending us that letter right away. —RALPH A. FLETCHER, *Secretary*, Post Office Box 71, West Chelmsford, Mass. HAROLD F. DODGE, *Assistant Secretary*, Bell Telephone Laboratories, 463 West Street, New York, N.Y.

#### • 1917 •

Our new president, Stan Dunning, did his usual masterful piece of work in directing preparations for the very successful 35th reunion at Portsmouth in June. A special account, longer than can be included in these notes, will be published separately and sent to all members of the Class.

The post-reunion news is not good. Within too few months there have been too many deaths. The most recent word is that of Sherry O'Brien, who died as he rested beside the pool in his Chicago club.

His wife, who was on a business trip in Europe, flew home from Paris for a delayed funeral and most of his friends heard about it somewhat later. It still seems hard to believe.

Only a few weeks earlier, Clarence Cochrane died. "The Kid" had made all arrangements for the golf program at the class reunion, but was unable to be present. There was a request that no flowers be sent—if his friends wished an expression, they might send a gift to the Francis Ouimet Caddy Fund in his memory. The fund makes scholarships available to worthy caddies, and has an excellent record; one beneficiary is now reported to be doing well at M.I.T. "The Kid" had been president of the Massachusetts Golf Association and the fund was his favorite "good work."

Herbert C. Williamson, prominent Rochester architect, well remembered by Tech Show participants, died there of a heart attack on July 1. He was the 76th Division's youngest major in World War I, and served again in the second war, returning a full colonel of the Air Force.—Howard E. Bailey of Quincy, Mass., consulting sanitary engineer, prominent in Boston and New England Baptist administrative affairs, died suddenly on May 9.—RAYMOND STEVENS, *Secretary*, Arthur D. Little, Inc., 30 Memorial Drive, Cambridge 42, Mass. FREDERICK BERNARD, *Assistant Secretary*, 24 Federal Street, Boston 10, Mass.

#### • 1918 •

Present at the bright and jubilant cocktail party arranged at the University Club for our particular Class by Max Seltzer were: Eli Berman, Erving Betts, Frank Burke, Johnny Clarkson, Mr. and Mrs. Lester Conner, Don Goss, Al Grossman, Grenville Hancock, Paul Howard, Julian Howe, Mr. and Mrs. Thomas Kelly, John Kilduff, Tom Knowland, Nat Krass, Leonard Levine, Mr. and Mrs. Alexander Magoun, Ray Miller, Gretchen Palmer, Fred Philbrick, Edward Rogal, Dave Rubin, Mr. and Mrs. Max Seltzer, Bill Wills, Ralph Whitcomb, and, bless our souls, Gretchen's escort, Father Pedersen. It was such a nice affair. Not everybody went on to the Alumni Banquet at the Statler. There was discussion of a scheme by which a substantial sum could be given to the Institute at our 50th reunion. Ray Miller outlined a plan, approved by the Bursar's Office, as follows:

(1) Each Alumnus whose health would warrant, from the standpoint of insurability, could participate in the plan by having a life insurance contract on his own life with M.I.T. as beneficiary.

(2) Each Alumnus agrees to pay the premium the first year, and one-half the subsequent premiums for the next nine years. M.I.T. would pay the other half beginning the second year.

(3) The plan used would be a 10-payment life for any amount from \$1,000 upward.

(4) M.I.T. would own the policy and would be the beneficiary thereunder and collect the face of the policy in case of premature decease of the individual.

(5) The yearly premium for each policy would be based on the individual's

age. For illustration: If an individual's age were 57, the rate per thousand would be \$100.71.

RESULTS: In assuming one-half of the premiums after the first year, M.I.T. is fully protected from the standpoint of paid-up and cash values. Further, the cash value together with accumulated dividends would equal the face amount of the policy in about 18 years, which means that M.I.T. would have a cash sum available to them later on together with the insurance protection for the face amount of the policy in the meantime. Ray Miller was appointed by the class president to head a committee to act further on this matter.

From W. F. Searles has come interesting correspondence concerning his work for the Holly Sugar Corporation at Sidney, Mont., and a post card or two as he vacationed in Jasper Park and the famous Banff Springs Hotel. His letter says in part: "When you hear of the old Missouri flooding, you will know the snow along the Yellowstone is about gone. Sidney is a very interesting place. I am enclosing a State Line Club map showing Sidney's location relative to Glacier and Yellowstone National Parks, Fort Peck Dam, and the Dakotas; also a map of the Sidney-Williston Oil Basin. Since this map was printed, there have been 19 new wells brought in. One gusher is marked on map, and big producers are circled. I enjoyed living in the New England area for a time, but I like the wide open spaces of Montana. It has a wide range of temperatures, from an occasional 53 degrees below zero to an occasional 115 degrees in summer, but always cool nights. We are to spend part of June in the Canadian Rockies. It is very beautiful around Banff, Lake Louise, and Jasper National Park."

Just to show how young we still are, on June 28 Marvin Pierce, President of the McCall Corporation, was married in Greenville, S.C., to Willa Martin. Mrs. Pierce is a writer and painter. She was a special feature writer and artist for the Associated Press in New York and is a book reviewer and speaker on radio information programs. She received the B.F.A. degree from the Department of Fine Arts, Yale University, and the A.B. degree from Furman University. Marvin was previously married to Pauline Robinson Pierce, who died in 1949. Beside his McCall job, Pierce is a trustee of the Atlantic Mutual Insurance Companies. He is a member of the Apawamis Club and University Club of New York.

Mr. and Mrs. George C. McCormick of Grosse Pointe Park, Mich., formerly of Newton Center, have announced the engagement of their daughter, Margaret Ann, to Ensign Thomas P. Kelly, Jr., U. S. Navy, son of our own inimitable Tom. Miss McCormick is a graduate of Wheelock College. Mr. Kelly was graduated from M.I.T. in 1951 and is a member of Delta Tau Delta Fraternity. He is now on active duty aboard the U.S.S. *Cotten*.

With sorrow I record the death of Alexander Magoun's older son, Richard. At age 30 he already was well on his way to distinction. A graduate of Yale with honors, a top-ranking graduate student at the University of Chicago, a professor at age



28, he had just finished a 468-page book manuscript when he was stricken with poliomyelitis in Chicago and died seven days later. — GRETCHEN A. PALMER, Secretary, The Thomas School, The Wilson Road, Rowayton, Conn.

## • 1919 •

Greetings to all have been extended by Wayland S. Bailey. He has been project engineer for the Kinnery Manufacturing Company of Boston since April, 1951. Congratulations are also in order as he writes: "Became a grandfather for the first time on July 29." His daughter, Mrs. John M. McPherson, and her husband, Don, are now the proud parents of a baby girl. His final comment was: "My wife and I don't feel any older but we're plumb proud."

Heartly felicitations are extended to Thomas H. Bott, Jr., on his election as president of the Beverly Rotary Club. In March of this year, he was also elected vice-president and treasurer of the Beverly Savings Bank and re-elected director of the Beverly Chamber of Commerce. His daughter, Joan, will be a valuable asset as teacher at Chatham Hall, Chatham, Va., this fall. Rogers B. Johnson writes that he is still affiliated with the United States Hoffman Machinery Corporation, selling and designing hospital laundries. The recent birth of a granddaughter, Wynn Evelyn Johnson, marked a big celebration, and best wishes are extended from all.

Another interesting article on engineering and economic subjects which recently gained headlines was the election of John W. Meader as assistant vice-president of the Great Lakes Carbon Corporation, New York City. Mr. Meader served from 1941 to 1945 as consultant in the U. S. Bureau of Aeronautics in aircraft production, weapons development, and operations analysis. He also was economist for the New York Trust Company for 10 years prior to 1941. Ralph Gilbert writes that his son, Robert, was graduated from Brooklyn College in June and has accepted an assistantship in the Physics Department at Carnegie Tech, where he will work for his master's degree in physics.

The July 25th issue of the Milton, Mass., *Independent* carried an article which stated that our classmate Isidor Slotnik of Newton, who is treasurer of the J. Slotnik Company, will head the 1952 campaign of the Combined Jewish Appeal of Greater Boston. Mr. Slotnik is known in the construction industry as the past president of the Associated General Contractors of Massachusetts and as a member of the Governing and Advisory Board of the Associated General Contractors of America.

The election of John Stevens as president of the Marathon Corporation took place at the quarterly meeting of the Corporation's Board of Directors. Associated with Marathon for 23 years, he has been vice-president since 1932 and a director since 1933. He was in charge of constructing Marathon's bleached sulphate plant in Canada and for the past several years has been in charge of the company's Canadian operations. He has been a member of the executive board of the Ca-

nadian Pulp and Paper Association for four years, and is a director of the Roddis Plywood Corporation at Marshfield, Wisconsin.

Congratulations to Earl P. Stevenson, President of Arthur D. Little, Inc., Cambridge, who received the honorary degree of doctor of laws from Wesleyan University, Middletown, Conn. President Victor S. Butterfield of Wesleyan cited Mr. Stevenson's leadership in both industrial research and community endeavors. The citation pointed out his service as counselor to our government in the field of science and as a recent distinguished recipient of our country's Medal for Merit. Mr. Stevenson is a consultant to the Department of Defense and the Chemical Corps and is a member of the Advisory Committee to the Massachusetts Civil Defense Agency. He is active in educational as well as industrial circles and is a trustee of the Winsor School in Boston, the Newton Savings Bank, and of Northeastern University, and is president of the Board of Trustees of Wesleyan University. In 1950, he was elected director of the American Institute of Chemical Engineers and recently was appointed to the National Science Foundation Board. He is also chairman of the panel on management and research of the Committee of New England, National Planning Association.

The following classmates were listed in the class registration for Alumni Day, held June 9, 1952: Ray H. Bartlett, Arthur H. Blake, Marion Daniels, Donald W. Kitchen, George W. McCreery, Eugene Mirabelli, Isidor Slotnik, Leighton B. Smith, and H. Stanley Weymouth.

Your Secretary hopes each and every one had an enjoyable summer and that the forthcoming issues of Technology Review will indicate greater news items from the classmates of '19. — EUGENE R. SMOLEY, Secretary, The Lummus Company, 385 Madison Avenue, New York 17, N.Y.

## • 1920 •

Greetings after a long summer hiatus! Your Secretary expresses the hope that you had as pleasant and interesting a summer vacation as he did. His was spent in visiting his son who is a naval aviation cadet at Pensacola, and his daughter who is now married and living in San Francisco, rounded out by a trip through the Canadian Rockies.

The most important and the most tragic news that must be spread upon this record is that of the sudden and untimely accident that took the life of our beloved classmate, John Alden Philbrick. Johnny met his death August 1 as a result of drowning following the crash of a plane in the harbor of Cuddyhunk Island. As had been their custom in recent years, he and Mrs. Philbrick were on their way for a vacation at the Island, chartering a plane to take them from New Bedford to Cuddyhunk. The plane nosed over during its water landing in the harbor. Mrs. Philbrick was rescued.

John was president of the Giant Portland Cement Company of Philadelphia, in which city he was prominent in many civic and social activities. He leaves two children and two grandchildren. His com-

pany has the following to say about him and it is a statement to which we can all subscribe: "John Alden Philbrick was a gentleman in the full sense of that word. He was a gracious host, a better than average bridge player and a good golfer. His sportsmanship was of the highest. His integrity was solid. He was a true and loyal husband and an understanding and fine father. He had become a well known figure in the cement industry and the company has lost an able president and good friend." We, too, have lost an able classmate and good friend.

To hark back to Alumni Day last June, our Class was well represented during the day, the following members being included: Al Burke, Ned Cochrane, George Des Marais, Bill Dewey, Foster Doane, Herb Federhen, Dick Gee, Al Glassett, Joe Hennessy, Pete Lavedan, George Manning, John Nalle, Bob Patterson, Ed Ryer, Bat Thresher, and Ernie Whitehead.

Al Glassett has been elected a member of the Alumni Council's Audit and Budget Committee, of which your Secretary is chairman. George Dandrow '22 continues on that committee.

Welcome word was received during the summer from the following: Harry Kahn was recently named plant superintendent of Stylon Corporation, Milford, Mass. He was formerly director of research and development with the Architectural Tiling Company of Keyport, N.J., and is generally regarded as one of the top ceramic engineers in the country. He has a son at Harvard Law School, a graduate of Rutgers, Class of '51. Harry himself took special courses in ceramic research at Rutgers after he graduated from M.I.T. Jim Wolfson sends the pleasing news that his youngest son, Daniel, is entering M.I.T. this fall. Jim says this is particularly gratifying to him since the two older boys went elsewhere. One is now a lieutenant with the U.S. Air Force, after graduating from Brown, and the other is studying drama at Allegheny College. Jim says he is at least batting three thirty three for Tech.

Jose Augusto Padilla-Vega came back to this country for a visit after 32 years in his native country of Honduras. He attended the International Congress of Photogrammetry in Washington and then returned to his home in Tegucigalpa. Jose says he has two nephews in the United States who are prospective M.I.T. men. Jose is chief engineer of the Special Geographic Commission for the Republic of Honduras. He is head of the Cartographic Office of the Ministry of Development and while here he attended the Congress of the Geographic Union.

J. Harold Stacey, who has been prominent in Vermont politics, was urged to run for governor but decided not to do so. He is a lumber and fuel dealer in Windsor, Vt. David P. Brown is senior vice-president and technical manager of the American Bureau of Shipping in New York City. He has spent his entire career in ship classification work. Our famous globe-trotter, Austin Higgins, is back from Korea. For the past 10 years he has been in 43 foreign lands and has girdled the globe several times, traveling well over 150,000 miles by air alone. Austin, who

is a colonel in the Transport Service, had an active part in the Korean war. He has two sons and a daughter.

As many of you know, Ned Cochrane has been appointed dean of the School of Engineering at M.I.T., to succeed Tom Sherwood '24. To take over this big responsibility, he left the job of maritime administrator and chairman of the Federal Maritime Board, which position he had held while on leave from M.I.T. where he was formerly head of the Naval Architecture Department. Tony Anable and Mrs. Anable have been appointed co-chairmen of the 1953 Red Cross Fund Drive for Stamford, Conn. Tony is also a trustee of the Stamford Community Chest. He has a son, Tony, Jr., in business in Boston, and a married daughter, Mrs. David D. Ogden who also lives in Boston. Gavin Taylor has recently been appointed executive vice-president of the McColl-Frontenac Oil Company of Montreal, one of the largest oil companies in Canada. He has lived in Montreal for 22 years and has one married daughter, one son, and one grandson. Golfing and curling are his major hobbies.

An earlier, but no less severe, loss to the Class that may not have been previously reported is that of the death of Phil Haebler who died of a heart attack on June 7 while watching sailboat races on the Shrewsbury River near Rumson, N.J. Phil was a summer resident of Rumson and was well known on Long Island Sound as a sailing skipper on both water and ice. His sloop *Candoo* was one of leaders in the International Class races. He both won and donated many trophies during his yachting career. Phil was vice-president of the Cerium Metals Corporation of New York and an officer in several chemical companies. Surviving are his widow and his son, William T. Haebler of Philadelphia. A comment from Ed Farrow says: "Phil was the first of the Course X-A group to pass on and it seems difficult to understand because he always seemed the most lighthearted and youngest in both spirit and action. At the get-together of the X-A group in June, 1951, he had changed the least; in fact, hardly at all."

Henry Massey paid me a very pleasant visit this summer and at lunch we ran into our new Alumni President, Ed Ryer, so we had a fine miniature reunion. Henry is a financial specialist who handles industrial loans from a quarter million up to many millions of dollars. He summers at South Chatham on the Cape and has two sons, aged 10 and 12, and a daughter six years old. He says they keep him young, and he certainly looks it.

Flossie Fogler Buckland and her husband recently announced the marriage of their daughter, Joanne, to William Lewis Kitchens, an ensign in the U.S. Navy. The marriage took place on the 15th of June at Boulder, Colo.

Lastly, a few address changes: Scott Carpenter is now at 83 Simonds Road, Lexington, Mass. Foster Doane is in Neenah, Wis., address 223 North Park Avenue. Jim Gibson is now at 52 Herrick Road, Newton Center. Art Littlefield has come back to Massachusetts from St. Louis, address 146 Elm Street, George-

TOWN. — HAROLD BUGBEE, *Secretary*, 7 Dartmouth Street, Winchester, Mass.

## • 1921 •

Welcome to everyone to start our 32d year of reporting for these monthly meetings. To pick up the thread of the story where we left off last spring, there were some 55 members of the Class, wives, and children at various functions of Alumni Day in June. This ever-increasing number of classmates who return for the one-day celebration in between regular five-year reunions enjoyed luncheon together in Du Pont Court and our annual class cocktail party at the Statler, in addition to the many other scheduled events of the day. Present, as usual, were Helier and Graciela Rodriguez from Havana; missing for the first time in many years were Saul and Rigi Silverstein, who sent a cable from Brussels, Belgium, reading: "Say hello to the gang; have a drink on us and annual snack; love and kisses." They were toasted by all present and are to be sincerely thanked for the good wishes and the very excellent hors d'oeuvres which they thoughtfully provided, as has been their gracious gesture in the past. Four tables were reserved for our group at the Stein Banquet, and it was a happy crew that broke up late that evening, taking their souvenir steins to home tables.

Among those present on Alumni Day were: Ellie Adams, Ollie Bardes, Jack Barriger, Mich Bawden, Cac Clarke, Joe Collins, Josh Crosby, Jack Cummings, Ed and Mrs. Delany, Chick Dube, Fritz Ferdinand, Harry and Mrs. Goodman, Bob Haskel, Sumner Hayward, Roy and Mrs. Hersum, San Hill, Mel Jenney, Andy and Mrs. Jensen, Murray and Mrs. Jones and son, Malcolm, Joe and Mrs. Kaufman, Frank Kittredge, Chick and Mrs. Kurth, Ed Lockwood, Leo Mann, John Mattson, Ted McArn, Ed MacDonald, Dick McKay, Charlie MacKinnon, Don Morse, Harry Myers, Phil and Mrs. Nelles, Warrie Norton, Herb Reinhard, Helier and Mrs. Rodriguez, Jack Rule, Ray and Mrs. St. Laurent, Ed Steffian and sons, John and Peter, Harold Stose, George Thomson, Bill Wald, and Dinne Whelan. Also, present at Jim Killian's dinner in the new Faculty Club on the eve of Alumni Day were Sumner Hayward, Ed Lockwood, Helier Rodriguez, and your Secretary as Honorary Secretaries of the Institute.

You will be interested to know that the gift to Technology, which we pledged to underwrite at our 25th reunion in 1946, has taken form and was ceremoniously unveiled prior to Alumni Day. The memorial to all the brave men of M.I.T. who gave their lives during World War II, including five members of the Class of 1921, is a plaque of Italian travertine marble, measuring about 35 by 15 feet, with 245 engraved names surfaced with gold leaf. Bearing the inscription "Gift of the Class of 1921," the memorial is located on a wall in the main lobby, Building 10, facing the entrance from the Great Court and to the left of the passage to the elevator as one enters. The World War I memorial is on the extreme left wall, at right angles to the new memorial. To

Zam Giddens, who headed the class gift committee, to all members of the committee, and to those who contributed so generously in order to fill this item of Technology's needs, we express hearty appreciation.

Lincoln B. Barker and Elizabeth Agnes Milmine were married on June 7 at the First Reformed Church, Schenectady, N.Y. Line is a metallurgist with the General Electric Company and the couple now make their home at Lisha Hill Road, Schenectady, N.Y. Margaret Scott Guckes, younger daughter of Mr. and Mrs. P. Exton Guckes of Camden, Maine, was married June 23 to Richard Kremenz, Jr., of Elizabeth, N.J. Mr. and Mrs. Alexander D. Harvey announce the marriage of their daughter, Phoebe Duer Harvey, to Bertrand F. Bell, Jr., in New York on June 19. Lieutenant Malcolm B. Lees, Jr., older son of Mr. and Mrs. Malcolm B. Lees ['20] of Ridgewood, N.J., was married June 14 to Louise Frances Engeler at Cold Spring Harbor, N.Y. The senior Mrs. Lees will be remembered as the former Cornelia Nelson of our Class.

Dug Jackson, Jr., wrote a long letter from Mount Dora, Fla., which came too late for incorporation in the last issue. He and Elisabeth are now grandparents for the fourth time. John Webster Seabury, Jr., arrived in Mount Dora on April 22 to Mr. and Mrs. Seabury. Mrs. Seabury was Elisabeth Jackson, 2d. Dug says there was some hectic driving between Aberdeen Proving Ground, Md., and Florida. The Jackson's youngest son, Daniel, has also been on active duty at Aberdeen as a second lieutenant. Meetings of the Ordnance Scientific Advisory Committee and the American Institute of Electrical Engineers kept Dug from attending Alumni Day. Tonna, daughter of Patricia Nelles Oram and first grandchild of Mr. and Mrs. Philip A. Nelles, Jr., arrived on May 8. Henry R. Kurth, our class representative on the Alumni Council, is receiving congratulations on his election as assistant vice-president of the Boston Edison Company, in addition to his duties as head of the Production Department. Chick and Frieda are three-time grandparents with the arrival on Christmas, 1951, of Bruce Kurth to their second son, Don, and his wife. Among those graduating from Technology last June were: Richard F. Jenney, son of Melvin R. Jenney; Robert M. Lurie, son of the late Joseph Lurie; John B. Mattson, Jr., son of John B. Mattson; Arthur H. Schein, son of Sumner Schein. Young Jenney, Lurie, and Schein distinguished themselves with high scholastic standing and their names appear on the Dean's List.

Franklin O. Carroll, major general and wartime head of Air Force activities at Wright Field, is now commandant of Maxwell Air Force Base, Montgomery, Ala. Ivan F. Chambers, textile research chemist with Du Pont, has a new address at 237 Colville Road, Charlotte 7, N.C. Weston Hadden, a life member of the Alumni Association and formerly with the New York Telephone Company, has moved to Old Bennington, Vt., where his address is 22 Monument Avenue. William R. Hainsworth, Vice-president of Servel, Inc., has a new home address at 14854



Tamarix Drive, Puente, Calif. Eugene A. Hardin of the Bureau of Engineering, Department of Public Works of the City of Philadelphia, also has a new home at 8 Oak Crest Lane, Swarthmore, Pa. Albert R. Honig, Jr., sales engineer for General Electric, says he now lives at 919 Woodbine Boulevard, Jackson, Mich. Daniel Noce, major general, organizer of the Amphibious Forces in World War II and commander of the 602d Engineers in World War I, has been named inspector general of the Army with headquarters at Fort Myer, Va. Don G. Shingler, brigadier general, is an instructor at the Engineer Center, Fort Belvoir, Va. During the summer changes of address were received for Harry J. Abrams, Max R. Butter, Francis O. Holmes, Henry A. Hutchins, Gordon M. Leland, Leo Mann, Clifton B. Morse, Rollin F. Officer, Nicholas J. Rossi, and Major Richmond H. Skinner. Your Secretary will be glad to furnish addresses.

Jackson W. Kendall is vice-president of Bekins Van Lines of Los Angeles and lives in Pasadena, where he is active in the Tournament of Roses, and Marge keeps up her Red Cross work. Jack, Jr., Stanford '51, has a commission in the Navy and has been on a destroyer in Korean waters. Robert, Stanford '52, is continuing his studies in chemical engineering towards a doctorate. Robert F. Miller, our class photo-historian and consulting industrial engineer on depot operations for the Signal Corps, missed the showing of his fine series of 1951 reunion pictures at our cocktail party last June because eldest daughter Peggy was graduated from high school that day. She has entered the Georgetown School of Nursing. George W. Outland, Colonel, Ordnance Corps, has retired after 35 years of military service. A resident of Arlington, Va., he has been chief of the Corps' intelligence, security and safety office. In World War II, he served in the China-Burma-India theater. He was graduated from Ohio State and received his master's degree in Course II with us. Colonel and Mrs. Outland have two daughters. Boyd W. Bartlett, colonel and head of the Department of Electricity at the U.S. Military Academy, has been elected an overseer of Bowdoin University, where he was graduated summa cum laude before taking his bachelor's degree with us in Course I.

Palmer W. Griffith, West Coast technical service director of American Cyanamid Company, was honored in June at the New York meeting of the Society of the Plastics Industry, with the annual award of the John Wesley Hyatt Medal for achievement of wide importance in his development of melamine resins. A graduate of Dartmouth, he received the bachelor's degree with us in Course V, his master's in 1922, and then joined American Cyanamid in plastics research at the Warners, N.J., laboratories. In 1935, he transferred to sales engineering and technical service and went to Los Angeles in 1943 to take charge of those activities on the coast. He resides in San Gabriel, Calif. Charles F. Baish, colonel, Corps of Engineers, and head of the Military Science Department at Technology, was

master of ceremonies at the Fort Devens, Mass., graduation exercises of R.O.T.C. cadets in July.

Daniel P. Barnard, 4th, National President of the Society of Automotive Engineers and Research Co-ordinator of Standard Oil Company of Indiana, spoke to the Oregon chapter of the society in Portland on "Research, A Partner in Engineering." John W. Barriger, President of the Chicago, Indianapolis and Louisville Railway Company, gave an address to the Pacific Railway Club, reprinted in the July 28 issue of *Railway Age*, entitled "Rate 'Ceiling' at Truck Costs Would Greatly Increase Revenues." In his six years as head of the Monon, Jack has built his road up on sound economic principles and here he proposes a long-run schedule based on his own experiences. C. Levon Eksbergian, executive engineer assistant to the vice-president, the Budd Company, gave a paper on the "Theory and Practice of Wheel Control" to the New York general meeting of the American Institute of Electrical Engineers, as did Carl Thumin, engineer in charge of development, ITE Circuit Breaker Company, who spoke on "Refinements in Dual Selective Overcurrent Trip Design." Robert J. Lawthers, manager, Benefit and Insurance Trust Department, New England Mutual Life Insurance Company, was a principal speaker at the June sales congress of the Vermont Association of Life Underwriters. Arthur E. Raymond, Vice-president in Charge of Engineering, Douglas Aircraft Company, spoke at the banquet of the Air Industries and Transport Association of Canada in Victoria, B.C., on "The Bouncing Crystal Ball."

To you and yours, an enjoyable Thanksgiving. — CAROLE A. CLARKE, *Secretary*, International Standard Trading Corporation, 22 Thames Street, New York 6, N.Y.

## • 1922 •

Having concluded the first 30 years with a splendid reunion at the Sheldon House at Pine Orchard, Conn., on June 6, 7, and 8, let us all draw a collective big breath for the next five-year run. To those of us who were at Pine Orchard, the following will be old stuff. To those who weren't, those who were will say that it was one of our best reunions. The weather favored us, the food was good, and the entire atmosphere pleasant and relaxing. For the record, the following were present at Pine Orchard: Abboud, Alland, Allen, Appel, Ash, Bainbridge, Bailey, Bellezza, Blackall, Blanchard, J. Allan Bowers, John Bower, Bradley, Briggs, Brokaw, Brown, Bundy '24, Burus, Carpenter, Chittick, Choquette, Coddling, Coogan, Copelman, Cowie, Crofton, Cummings, Cychol, Dakin, Dallye, Davis, Dickerman, Dillon, Dimmick, Ditton, Duane, Dudley, Duge, Eacker, Edmonds, Fales, Whitworth Ferguson, W. T. Ferguson, Gahnkin, Gens, Gilman, Godard, Goodnow, Grady, Greening, Grover, Haebler, Hallock, Halpin, Ham, Harris, Haskell, Hennessy, Hogan, Horovitz, Johnson, King, Koehler, Kurtz, Laird, Lapenta, Lennon, Levenson, Li, Liecny '24, Linsley, Loss, McConnell, McGrady, MacKenzie, MacMahon, Manshel, Metcalf, Miller, Milliken, Mo-

linar, Minton, Mueser, Munning, Murley, Neiley, Nesmith, O'Connor, Payne, Phillips, Pinkham, Purinton, Rich, Riley, Robbins, Robertson, Rosengard, Rundlett, Sargent, Saunders, Sawyer, Shaw, Sherbrook, Shirey, Irwin J. Smith, Van Dorn C. Smith, Speir, Spoor, Steinberg, Stone, Stose, Strauss, Strieder, Sutherland, Swett, Taylor, Terkelsen, Thomas, Thomson, Thulman, Tonon, Trowbridge, True, Tyson, Vadner, Vaupel, Vilett, Westcott, Whitman, Williams, Wing, and Wilbur.

At the business meeting on Saturday, the following officers were elected to serve for the next five years: President, Raymond C. Rundlett; Vice-presidents, Laurence B. Davis and Frederick S. Blackall, Jr.; Secretary, C. Yardley Chittick; Assistant Secretary, Whitworth Ferguson; Treasurer, Everett W. Vilett; Assistant Treasurer, Dale D. Spoor; Alumni Fund Representative, Parke D. Appel; Alumni Council Representative, Kenneth R. Sutherland. While the cost of the reunion was held to a minimum, skillful management by the Committee resulted in a small profit which has been added to the class funds. A resolution passed at the meeting authorized the officers to utilize part of the class funds, not to exceed \$500, to round out the class donation to the Alumni Fund.

June 9, Alumni Day at the Institute, found the following on hand for luncheon in the Great Court, the tour of the buildings, the cocktail party in White Ferguson's room, and, finally, dinner at the Statler: Abrams, Appel, Berry, Bower, Brown, Chittick, Cowie, Craig, Culver, Cychol, Dandrow, Dillon, Dimmick, Eacker, Fales, Ferguson, Goodnow, Gorman, Freeman, Gens, Godard, Grover, Hewes, Hobbs, Hogan, Horovitz, Johnson, Keenan, Kurtz, Levenson, Lovejoy, McIntyre, Meling, Miller, Phillips, Pierce, Pratt, Riley, Robertson, Rosengard, Russell, Spoor, Steinberg, Stiles, Terkelsen, Tonon, Vaupel, Vilett, Wagner, Whitman, and Wing. While the reunion at Pine Orchard was stag, we are glad to report there was a goodly out-turning of wives on Alumni Day. In passing, it might be noted that some of our classmates think that the time has come to invite the wives to the five-year reunions.

A note of regret of his inability to attend the reunion was received from Evald Tomanek, who is now rector of the faculty of social sciences and professor of public health at the Medical School at Masaryks University at Brno, Czechoslovakia. Pictures that he enclosed of himself and Mrs. Tomanek show him to be in excellent health at the age of 68. Our second oldest classmate, however, Valentine Gahnkin, was with us at Pine Orchard.

Fred Blackall, representing the New England Council, was one of the speakers at the dedication of the new Ford plant in Natick on June 20. Oscar Horovitz goes right ahead winning more honors in the movie world. The Amateur Cinema League has now made him a Fellow. Oscar's movies have attracted national attention. Eric Hodgins was one of the five men constituting the President's Materials Policy Commission appointed in January, 1951, which made the recent report entitled "Resources for Freedom." Minot

Edwards continues as the New England chief of cost estimating branch for the Army with his headquarters at the Boston Army Base. The procedures he has set up have resulted in very substantial savings of which all taxpayers will be glad to hear. A recent letter from Norman J. Greene shows that an honest dollar can still be made in the securities business. Norm is a director of Piper Aircraft Corporation, a coal company and a water company. He also serves on the board of the Genealogical Society of Pennsylvania while continuing his membership in the Philadelphia-Baltimore Stock Exchange. His daughter was married in May, and his son, Norman, Jr., was graduated shortly thereafter from Bucknell University.

Gus Hemeon, who failed to make the reunion for the first time within memory because of his son's graduation from Lafayette, continues busy with the Ternstedt Division of General Motors in Trenton. On September 4, Gus delivered a talk to the National Conference on Industrial Hydraulics at Chicago on "Hydraulic Equipment, Design, Construction and Maintenance." Vice-admiral Leslie C. Stevens was the author of a very informative article in the *Atlantic Monthly* last May entitled "The Russian People." John Goodnow's wife, Catherine Spencer Goodnow, was the subject of a featured sketch in the *Boston American* of June 24. Mrs. Goodnow, in her career as a watercolor portrait painter, has done over 500 pictures. Her studio is in the Goodnow home at Greenbush where they live with their two children: Mary, now a senior at Abbott Academy; and John, a sophomore at Harvard. Our peripatetic parson, the Reverend Lester Clark Lewis, has recently resigned his post as minister of the Unity (Unitarian) Church in Brockton, to become the first minister of the new First Unitarian Society of New Haven, Conn. During the summer he and Mrs. Lewis made another trip abroad, this time to England and France. While in Brockton, Dr. Lewis was one of three clergymen appointed to the Committee on Economic Development. The Brockton paper, *Enterprise and Times*, said of his departure, "His seven-year ministry here leaves an impress." George P. Deane of Middleboro, Mass., has been elected to the board of directors of the recently reorganized Barbour Welting Company of Brockton. Leonard B. Laird, for the past 10 years head of the New England Envelope Manufacturing Company of Worcester, left that company last June to start his own company, Bookmaster Product Sales Company in Worcester. Fish has two children: Harriet, a graduate of Skidmore; and William, a junior at Bates. George R. Prout, Vice-president of General Electric, has been appointed vice-president of his company's nucleonic and atomic projects with headquarters in Schenectady, N.Y. In this capacity, he will co-ordinate activities of the Atomic Energy Commission among all organizations of the General Electric Company. Back in 1929 Prout received the Coffin Award in recognition of his engineering contributions in the application of electric equipment to oil pipeline pumping. Mrs. Gordon C. Prince

has been elected a trustee of Radcliffe College.

In Troy, Rensselaer Polytechnic Institute awarded an honorary degree of doctor of engineering to Crawford H. Greenewalt, President of Du Pont, at the annual commencement exercises last June. Last July, Professor Everett M. Strong of the School of Electrical Engineering at Cornell was elected president of the Illuminating Engineering Society of which he had previously been vice-president, treasurer, and director. Wallace L. Howe has been appointed director of research and development of the Norton Company, Worcester, with whom he has been associated since 1923.

By the time these notes are published, Frederick S. Blackall, Jr., President and Treasurer of Taft-Peirce Manufacturing Company, will have been elected president of the American Society of Mechanical Engineers for 1953. As head of a group of 35,000 engineers, Fred will have further opportunity to use his distinguished abilities. In the *Marine Digest*, published in Seattle last May, under the title "Captains of the Pacific Northwest Maritime Industry," appeared a splendid article on our classmate, Horace W. McCurdy, President of the Puget Sound Bridge and Dredging Company. Harold R. Boyer is now manager of the Cadillac Tank Plant of General Motors in Cleveland. This appointment followed his tour of duty in Washington where he assisted Mr. Wilson as chairman of the Aircraft Production Board.

New addresses: Colonel Robert S. Barr, 3001 8th Avenue, Pueblo, Colo.; Colonel Morris M. Bauer, Apartment 8, 3006 M.A.S. Street, Houston 21, Texas; Roger D. Carver, R.D. 1, Franklin, Pa.; John A. Chapman, Caleb's Lane, Box 58, Rockport, Mass.; Harrison D. Folinsbee, Post Office Box 262, Cambridge, Md.; Kenneth G. Hamilton, 57 Maplewood Avenue, Maplewood, N.J.; George W. Heathman, 50 Ivanhoe Avenue, Dayton, Ohio; Vice-admiral Willard A. Kitts, 3d, Gen. Electric Company, Aircraft, Federal and Marine Division, Schenectady, N.Y.; Edward A. S. Morse, Walnut Valley Acres, Box 195C, Route 3, Charleston, W.Va.; Edward J. O'Connor, Post Office Box 536, Manchester, N.H.; Frank O. Rickers, 3046 Alpine Terrace, Cincinnati, Ohio; James D. Sarros, 100 Northfield Road, West Orange, N.J.; Richard J. Sholtz, Standard Milling Company, 18th and Kansas Avenue, Kansas City 3, Kansas; Colonel Abraham G. Silverman, Rhine Military Post, S.C.U. No. 7812, APO 227, in care of Postmaster, New York, N.Y.; Vice-admiral Leslie C. Stevens, 213 King George Street, Annapolis, Md. — C. YARDLEY CITTIK, *Secretary*, 41 Tremont Street, Boston 8, Mass. WHITWORTH FERGUSON, *Assistant Secretary*, 333 Elliott Street, Buffalo 3, N.Y.

#### • 1923 •

The annual meeting of the Class was duly held June 9, Alumni Day afternoon, at the Statler, followed by a well attended cocktail party. Your Secretary could not be present, but through the good offices of Dave Skinner and Chan Clapp the business of the meeting was carried on and

the following report is available.

Dave confirmed the dates, June 12-14, 1953, for the 30th reunion to be at the Sheldon House at Pine Orchard, Conn. Pine Orchard is near New Haven and should be convenient for the predominant groups of Class Alumni in the Boston and New York metropolitan areas. Chan Clapp is chairman of the 1953 Reunion Committee and you may be hearing both from him and from me with further particulars about the reunion program before these notes appear.

For the record, it should be indicated that those attending the class meeting or other events of Alumni Day included the following, who in each case, I understand, were accompanied by their wives: John E. Burchard, Channing P. Clapp, Robert J. Hull, Harold C. Pearson, and Royal Sterling. Other individuals present were Theon G. Adams, Benjamin Albert, Alan R. Allen, F. C. Chan'24, Harry M. Chatto, Philip L. Coleman, Thomas B. Drew, Hugh S. Ferguson, Joseph Fleischer, Harold B. Golding, E. Louis Greenblatt, W. B. Greenough, Franklin K. Haven, Robert L. Hershey, Myrna S. Howe, Wentworth T. Howland, George A. Johnson, Egton E. Kattwinkel, Dave Kaufman, Elliot P. Knight, Howard A. Lockhart, Henry C. L. Miller, James A. Pennypacker, Horatio C. Sexton, David W. Skinner, Julius A. Stratton, Roy C. Wagner, Dorothy W. Weeks, and John H. Zimmerman.

The first of a series of mailings about the reunion brought information about various members of the Class. Forrest Lange is emergency planning superintendent at the Naval Shipyard in Portsmouth, N.H. He reported that he could not make the class meeting in June because, as president of the Portsmouth Naval Shipyard chapter of the National Association of Naval Technical Supervisors, he had been elected delegate to the national convention, June 3-5 in St. Paul, Minn. — Bert McKittrick is president of Frank C. W. McKittrick Company of Lowell which operates a number of divisions, one of which handles textile machinery. He writes: "As part-time recreation — and hopefully or optimistically, at no loss — I own a very small racing stable whose current supposedly best member is a three-year-old grandson of Man-of-War. He needs his grandfather around to give him a kick in the right place as he is one of the most frustrating pieces of horseflesh ever to drive his trainer crazy, his jockey to the point of absolute, cold-blooded, premeditated assassination, and his owner to get bids from various dogfood manufacturers. If you have any replies listing, or admitting, any knowledge of horse training, here is their chance to come to the aid of a classmate who is just as baffled as he used to be in descriptive geometry classes."

In the report on grandchildren, Franklin G. Clement, who is a partner of E. F. Hutton Company, Chicago, and lives in Lake Forest, has two: twins. — Bill LaLonde, who is head of the Department of Civil Engineering at Newark College of Engineering, says his son, W. S. the 3d, is a sophomore in civil engineering at Cornell. His daughter, Marilyn, married



Lieutenant Stephen J. Boyle of Newark and the couple are at Ft. Benning, Ga. — Colonel Archie S. Buyers, U.S. Army, retired, of Sterling, Ill., sends a note from England with a temporary return address, care of his son, Major J. F. Buyers at a U.S. Army Engineer School: "Sailed for Europe on *Ryndam* of Holland-America Line, 26 October, 1951, and have had a look at Holland, Bavaria, Switzerland, France, Spain (including over 5 weeks on island of Mallorca), Italy and Greece. Hope to see a bit more of Austria and of England before returning to the U.S.A. next fall. Have found a little English Standard Vanguard car, fine for touring over here."

Al Redway is president of the American Paper Goods Company at Kensington, Conn., which company he joined about three years ago. He says their principal products are paper cups, cellophane and glassine bags, and open-end envelopes. He was in Europe in April and May. A daughter, Nancy Elizabeth, was married, he reports, two years ago this spring, so Al is able to report his first grandchild, a granddaughter. His son, Albert S., Jr., graduated from Princeton this June with a commission in the U. S. Army Artillery and was scheduled to be married just a couple of days after Al wrote me, June 26.

Each time I make a class mailing I turn up someone who apparently has not been getting previous mailings for one reason or another. One of those heard from was Felipe Diaz-Ossa, advertising director and commercial manager of Empresa Editora Zig-Zag in Santiago, Chile. His firm publishes a fleet of popular magazines with a wide circulation in Chile and other Spanish-speaking countries. — Mrs. Harold F. Cotter had the sad duty of reporting the death of her husband on April 29. He had been head of the Pulp and Paper Technology Department of the School of Chemistry, Metallurgy and Ceramics at the University of Alabama, Tuscaloosa. Cotter's death was due to a heart attack. — Lowell L. Holmes sent in, with his reply, a folder describing his work as a lecturer on management and personnel practices. He has his own consulting firm in Indianapolis and can report two sons and four grandchildren.

I mentioned in recent notes that Charles H. Ducoté had a daughter being married in June. The formal announcement of the wedding subsequently received says that the daughter, Consuelo Gabrielle, was married June 14 in a church wedding to William Frank Gibbs Lykes, ensign, United States Navy. — I also received from Eduardo Icaza A. an invitation to the wedding of his daughter, Edna, to Alfredo Orrilar on August 15 at Panama, Republic of Panama.

A publicity release of the Bakelite Company, a division of the Union Carbide and Carbon Corporation, announces the appointment of R. K. Turner of Larchmont, N.Y., as vice-president in charge of production. Turner joined Carbide and Carbon Chemicals Corporation at Clendenin, W.Va., in 1924, and was general superintendent of the South Charleston, W.Va., plant from 1940 to 1946. Since then, he has been with the works management department in New

York. From the publicity release we get the following vital statistics: one son, George, [45] 26, of Whittier, Calif.; and four daughters — Mrs. J. E. Smyrl of Oak Ridge, Tenn., Ellen 22, Janice 20, and Lois, 18. — Howard L. Cobb is chief draftsman of the Aircraft Radio Corporation in Boonton, N.J. A clipping from the June 6 *Times-Bulletin* of that city mentions Cobb as a member of the building and grounds committee of the local board of education. The occasion was Cobb's contribution of a plan for rewiring of the school buildings, which had been exceptionally well done. — *Aviation Week* on April 14, in an article about the Civil Aviation Administration, mentions that W. A. Klikoff had recently been named chief of the aviation safety division in the Los Angeles region. The article singled Klikoff out as the rare exception of a qualified engineer in the CAA setup.

At their June meeting, the board of directors of the American Mutual Liability Insurance Company elected Edward C. Vernon to the position of assistant secretary. He had recently been appointed director of a new program of underwriting research and development in the Boston home office. He had previously been with the company in Chicago and Philadelphia. — Milton E. Parker was commended by *Food Processing*, a trade journal, for his leadership in providing at the Illinois Institute of Technology a curriculum specifically designed to train food engineers. — Dorothy W. Weeks was the featured speaker at the annual meeting of the State of Maine division of the American Association of University Women at Saco, May 9 and 10. Dr. Weeks is head of the Physics Department at Wilson College, Chambersburg, Pa. — HORATIO L. BOND, Secretary, National Fire Protection Association, 60 Batterymarch Street, Boston 10, Mass. HOWARD F. RUSSELL, Assistant Secretary, Improved Risk Mutuals, South Broadway, White Plains, N.Y.

## • 1924 •

"Heads Harvard Alumni"; "Gives \$1 Million to Charity"; "Plays Second Violin in Symphony"; "Spends Public Funds with Care"; "Raises 100,000 Delphiniums."

Does this sound like the M.I.T. Class of 1924? Doesn't seem likely. Yet these headlines actually do describe what your classmates have been doing recently. Here are the fill-ins: As is their wont, the alumni of the Harvard Business School elected a new president last spring, none other than the Man of Steel, Edward J. Hanley. From San Juan, Puerto Rico, comes the news that the vice-president of Ferré Enterprises, Luis Ferré, has established a million-dollar foundation "for the promotion of higher education, the furtherance of literacy, musical and dramatic art, and to help charitable and philanthropic institutions." In Worcester, Mass., the newly formed Worcester Symphony Orchestra gave its première concert last May. Playing second fiddle, Elmer R. Derby. One of our public servants is Ralph Alden who retired last spring from the Springfield, Mass., Board of Public Works. Said a local paper: "Mr. Alden is a good citizen. When it comes to

dishing out public funds he returns to his M.I.T. training and is reasonably careful about expenditures. A good many Democrats are okay when not under the hypnotic spell of their national fan dancers." The paper? Why, the Springfield *Republican*, of course. And in Charlemon on the Mohawk Trail is the Lanky Yankee Nursery where James H. Bissland Jr., raises hardy perennials and ground covers, produces about 100,000 perennials annually. Probably this all goes to prove that an M.I.T. education can lead to success in almost any field.

Out in Leavenworth, Colonel George Reinhardt, faculty member of the Command and General Staff College, has come up with a plan for a national staff. Scoop's idea sounds eminently logical, an over-all body to command and co-ordinate our total foreign affairs program, military, economic, and diplomatic. He wants to put an end to the present multitude of unco-ordinated activities galloping madly in all directions.

Now that New Hampshire's Governor Adams is off getting Ike elected, Blaylock Atherton, as acting governor, is having a busy time of it, what with the rash of country fair openings and all at this season. Sorry to report, however, that Blay changed his mind about taking up full-time residence in the governor's mansion. He didn't enter the primaries.

Very successful cocktail party just before the Alumni Banquet last June, with the Schoolers hosting in their usual excellent fashion. Bill MacCallum had the long-distance prize for a short while, but then Royce Greatwood '25 showed up and it's difficult to outdistance Tokyo. Royce was around for a couple of days and we all wished it had been longer, for he had a very clear insight into the whole Far Pacific situation. One thing seemed certain; we're going to be in Japan for a long time. He had come via Europe and spent a few hours behind the Iron Curtain in Berlin. His outstanding impression of the people he saw there: hopelessness. Not present that day, Bill Robinson. A note gives an explanation. Bill hit the jackpot that Monday. He had five speaking engagements!

In the field of big business: In the late spring, James F. Crist, Vice-president of the Southern Company, was transferred from Atlanta to the Birmingham office. Jimmie is also a director of the Southern Company and president of the Gulf Power Company. From Bangor, Maine, comes word that the Eastern Corporation, big name in the paper business, has a new president and director, Harold Holden. And Canada has lost a member of Parliament. Denton Massey has left for Paris where he becomes general manager of European operations for Willys-Overland Export Corporation. There's a big expansion program on in western Europe, Greece, and Turkey. No doubt Dent will have Europe overrun with jeeps before long.

Another member of the Class has passed away. In late June, Charles W. Riva died suddenly in Providence, R.I. Charlie had headed his own construction firm there for some time. He was with us at reunion. It is with deep regret that we

record his loss.

We're getting to the point now where we don't scan the birth announcements for the names of parents any more, but drop down another line. The "New Citizen" column of the Boston *Herald* recently yielded this one: "Grandparents are Mr. and Mrs. Carroll L. Dunn of Plaistow, N.H." It was a new son born to Carroll's daughter. And the Julian A. Joffes of Mount Vernon, N.Y., are proud grandparents of a little girl, Barbara Lynn, born in August. Julian's son, Roland, graduated from the University of Illinois in 1951, is in the sugar decoration business with him.

Charles E. Herrstrom, partner in the firm of Bosworth and Sessions, patent attorneys in Cleveland, was honored recently by being elected president of the Cleveland Patent Law Association. Many of you will remember Bill Sessions'26, one of Charlie's partners. Hudson Hoagland, executive director, Worcester Foundation for Experimental Biology, gave an interesting figure in a recent speech. With mental disorders America's number one medical problem, he said that \$500,000,000 is spent annually to maintain public hospitals for mental patients, but only \$3,000,000 on research to keep them out. Mental illness is one of a half dozen major subjects of research at Dr. Hoagland's foundation.

In August, the Rochester *Times-Union* ran a "Salute" to Gordon W. Harvey, chief engineer and general manager of the Genesee State Park Commission. Gordon lives in Letchworth State Park, 13,000 acres and half a million visitors a year. He also has a couple of other parks, but Letchworth is the one that gets the billing. It is, says Gordon, "the finest scenic park in the eastern part of the country," and he adds that all of you will get a big reception if you drop in to see him. "The Grand Canyon of the East" is just south of Rochester.

Frank Reeves has left the Land of the Longs. After some years in Baton Rouge he's now in New York with Ebasco. Bob Simonds has finally deserted the skiing slopes of Woodstock, Vt., and has gone back to civilization—East Hampton, N.Y., that is. And Colonel Bill Sturdy must have returned overseas. Haven't heard from him directly but his California address has been changed to a New York APO—and he's a full colonel to boot.

Just before Alumni Day the New York segment of the Class, and it's quite a segment, held their own reunion. A goodly crowd was there. The whole thing took on an international flavor when Johnny Fitch gave an accounting of the Export-Import Bank operations and Nish Cornish, just up from below the border, went into his sales talk on Mexico City. It must have been good, as usual. They voted unanimously to hold next year's luncheon in Mexico City!

Wish I had heard from more of you this summer. Especially missed Ed Winger's pictorial post card series. Let me know when you become a president or a grandfather or something else vital.—HENRY B. KANE, *General Secretary*, Room 1-272, M.I.T., Cambridge 39, Mass.

## • 1925 •

Although this begins a new year, there is still the unfinished business of reporting the 1925 attendance at the 1952 Alumni Day festivities. For the second year, the Class had a room at the Hotel Statler and there was an enjoyable gathering prior to the Alumni Banquet. In attendance at the various activities on Alumni Day were the following: Blair, William R.; Caldwell, Samuel H.; Cunningham, Henry V.; Duncan, Fred J.; Foster, F. Leroy; Freeman, Maurice T.; Glaser, Samuel; Goldman, David; Greer, Fred W.; Hodson, Robert; Howard, James H.; Kussmaul, Edwin E.; McLaughlin, Edward D.; McKenna, Henry F.; Oliver, Carroll; Rice, Frederic M.; Stanton, Avery H.; Thulin, Clarence; Turnbull, Francis J. In addition to this group Alfred Kullman dropped in on the 1925 group for a few moments and of course it was a pleasure to renew acquaintances with him. He had other commitments and was unable to attend the banquet with the Class. Chink Drew, who was in town for another convention, managed to drop in for a few minutes just before the banquet and he extends his greetings to the rest of the Class. The Class made its presence felt at the Alumni Banquet thanks to the very fine cheer-leading of Sam Glaser. In Sam's enthusiasm he forgot to empty his beer mug, which is difficult to understand, so that at the height of his performance the dregs were sprayed on some of the loyal Alumni seated on the floor beneath our Class. However, a spray of good Narragansett could not dampen the fervor of the Alumni on the floor. Sam was somewhat embarrassed because of this incident and for a matter of 15 or 20 minutes changed his class affiliation, but as matters calmed down we were glad to be able to bring him back into the fold.

About the time of the Alumni Day activities, we learned that Ed Kussmaul is now president of the Boston Exchange Club and had a busy time since the Boston club was acting as host to the Massachusetts Exchange Clubs about that time. Ed didn't bother to tell any of us about this, we had to get the information from the newspapers.

It was recently announced that Karl R. Van Tassel, VI, has been appointed general manager of the Operating Department of the Knolls Atomic Power Laboratory at the General Electric Company in Schenectady, N.Y. This laboratory is operated by General Electric for the Atomic Energy Commission and its main task is the design and construction of an atomic power plant for United States submarines. Karl has been with the General Electric Company since his graduation, having held various posts in Pittsfield, Mass., Fort Wayne, Ind., and the River Works at Lynn, Mass., before going to Schenectady.

Congratulations are also in order for John M. Campbell, X, who has recently been named assistant technical director on the general manager's staff in the General Motors Research Laboratories at Detroit and Arthur R. MacLean has been promoted to colonel in the U.S. Engi-

neers Corps and now has an APO address out of San Francisco, Calif.

On August 9, 1952, Francis G. Cunningham, X, was married to Molly Eberhardt Kowalewski in the Rindge Congregational Church in Rindge, N.H. Gray is presently employed with the Ebasco Services in New York City. He has been living in Summit, N.J. but as of now he and his wife are residing at 27 Wright Street, Newport, Conn.

Your Secretary is sorry to report that he missed Geoff Roberts, who has been on an extended tour from Malaya. He dropped in on me at the Institute while I was on vacation but I have since had a letter from him in which he states he left Malaya in April, flew on to England, and spent six weeks motoring in England and two on the Continent. He and his wife then came to New York by sea and drove across the States. He has had a wonderful trip and after spending a few weeks in California plans to return to Malaya about the end of October. He has been living abroad for the past 19 years and says there have been many changes in that time. He states that the principal change seems to be the impact of the motor car and the terrific material improvement all along the line. He is not so certain of the uplift of society generally.

I would like to add, by direction of President Ave Stanton, the following news item which appeared in the Boston Sunday *Herald* of July 13, 1952: "Dr. F. Leroy Foster, Assistant to the Director of the Division of Industrial Cooperation at the Massachusetts Institute of Technology, has been promoted to Associate Director. This was announced last night by Nathaniel McL. Sage, Director of the Division. Dr. Foster, who lives at 141 Jefferson Street, South Braintree, with his wife and two sons, joined the staff of the Institute in 1925."—F. LEROY FOSTER, *Secretary*, Room 5-105, M.I.T., Cambridge 39, Mass.

## • 1926 •

As I packed my pipe with Edgeworth and filled my Parker 51 in preparation for writing these notes, I stood before our large window that overlooks the sea. On this mild September evening it is very dark out there with the gas buoy a mile and a half off shore blinking at 10-second intervals and the green light at Straights-mouth flashing every seven seconds. The wind has been easterly for a couple of days and the waves are rolling in with just enough power to beat out a rhythm on the rocks below that is without question the finale to summer.

It has been a full summer here at Pigeon Cove and our doorstep has been brightened many times by visits from members of the class. Early in the summer Mal Hird came to New England with his family for a bit of vacation and stopped off at Rockport to see his brother-in-law, who is one of our local selectmen. I was pleased that Mal was able to drop over on a Sunday morning for a pleasant chat. Mal is with a textile dyeing and finishing company in Northern New Jersey. Another early summer visitor was Sam Homsey, up from Wilmington, Del., for



a few days of painting and sketching. Sam dropped around one evening before dinner and we clicked steins. Hope to be seeing more of him since he has been commissioned to design a church in Boston.

You may recall that about a year ago we purchased a sailboat, which of course rested in its cradle until early this summer. However, once out of its cradle it really demanded attention, especially since, strange as it may seem, we had to learn to sail. The first race of the season was held on July 4 and someone hailed from a boat at anchor as we were heading out of the harbor for the starting line. Upon returning to the harbor we rowed over to see who had hailed us and found Dick Hawkins<sup>27</sup> and Dick Parsons<sup>26</sup> and their wives aboard Dick Parson's auxiliary sloop *Polaris II*. We corralled the Hawkins and Parsons and came back to Pigeon Cove for a short visit, picked up the George Gilmans<sup>23</sup> and returned to Rockport for the annual Fourth of July parade. We haven't missed one of these parades for years—they are wonderful and could only be produced in a combination small town and art center like Rockport. Remember this if you are ever in New England on the Fourth of July, and I'll take you to our favorite viewing stand—a knoll in the old cemetery, overlooking the front beach. I guess the Parsons must have liked Rockport because the following week the *Caronia* was again in the harbor and this time their daughter was aboard too, and also a very eligible-looking young man. Just how eligible was indicated a few weeks later when we recognized Dick's daughter's portrait in the Sunday *Herald* and read that: "Mr. & Mrs. Richard Bronson Parsons of Hingham announce the engagement of their daughter, Miss Carol Bronson Parsons to Mr. Wallis E. Stuart, III, son of Mr. and Mrs. Wallis E. Stuart, Jr. [17] also of Hingham."

That Fourth of July race demonstrated that the rudder of our sailboat *Cirrus* had nearly lived its useful life and that we must have a new one at once. There is only one ship's carpenter in Rockport, a fellow named Waddell. Early in the season he is swamped with rush jobs for people who must get their boats in the water. I quickly learned that Waddell (no one calls him by his first name or even Mister, just plain Waddell) was the man who built Austin Kelly's ill-fated ketch two years ago. Because I was a classmate of Austin's I got special priority and the rudder was made while others waited. Thanks Austin, for letting me capitalize on your good will with Waddell. Isn't he the grandest fellow—it must have been a pleasure to have him build a boat for you. Incidentally, Waddell is still grieving over the disaster that befell your craft right after you took it over. (For those who did not read about the misfortune—Austin was caught in a terrific Long Island squall two weeks after his boat was delivered. 100 boats were lost including his). That was the last boat Waddell built, but he still does a lot of repair work and builds houses with his son.

One Sunday evening in late August we came up the drive from an afternoon on

the water to see a distinguished-looking gentleman pinning a note to our front door stating that he and his wife were sorry not to find us at home. When he turned around it was none other than the Don Cunninghams who had driven around from the south side of Boston over route 128 (we will tell you about this new highway sometime when there is more space; it has brought the north and south shores much closer). We had a most pleasant evening chatting on the terrace with the Cunninghams, until they felt it necessary to take to the circumferential highway. Don, as you recall, is plant manager of the Hersey Manufacturing Company in South Boston. They make water meters. Don will soon have completed his 23d year with Hersey and, having been in the Boston area for so many years, he has always been around with a helping hand for our class reunions and other functions. In the late spring I learned that Dan Bloomberg had passed through Boston enroute from Europe back to California. I lost no time in writing him a scolding note for not putting in an appearance. Much to my surprise I had a post card from him in mid-August, portraying the Bank of England. He was back in Europe for the second time within a few months. This time, on his return to California, we did see Dan. On the Sunday morning before Labor Day a friend took me sailing in his 210 (a selling job that was most unconvincing) and I returned to find Dan and his wife and Dad on the terrace. Ruth had been entertaining them until I returned. It was grand to see Dan again for it had been close to 25 years, but except for looking more distinguished he has changed almost none at all. He still has all of his hair and no gray ones! Also, if vests were still in vogue he could wear one that he had in '26. Dan has been in the moving picture producing business ever since graduation and, as chief engineer for Republic Pictures, he has been spending considerable time in Europe setting up producing and processing facilities. Twenty-five years ago, Dan and I owned a rowboat with a sail—a \$25 total investment. I tried to persuade Dan to race with me in the afternoon for old times sake, but with two days at his disposal there just was not time. He will be back for a sail someday, I am sure.

A recent letter from our Class President, Dave Shepard, arrived just in time for incorporation in the notes. I'll quote from the paragraphs telling of his activities during the summer: "Kay and I vacationed on a ranch (elevation 8,700 feet) in the mountains of northwestern Colorado, 45 miles from the nearest town. The isolation, the fishing, the horseback riding, and other characteristics suited us to a T and we had a fine time. We also somewhat reduced the fish population of my native state. I only got thrown from my horse three times and fell in the river only seven or eight times, which is pretty good for me. I had one week end last month on your beloved Cape Cod where our daughter Berney has been working in the Arena Theater at Orleans. She is most enthusiastic about her summer and her activity in a student group 'doing stock,' a new play each week. She has done it

well and had fun. Our son Dave was also working near there at his summer job washing dishes in a boys' camp to which he used to go in more luxurious state. Here's hoping to see you soon." We were mighty pleased to hear of your activities during the summer, Dave, but let me straighten you out once and for all on one point. My beloved Cape and that place called Cape Cod that you refer to are quite different places. My Cape is Cape Ann, which is northeast of Boston some 40 miles—therefore within commuting distance and blessed with a rugged rocky coast line and nice cold water where the best lobsters lurk. This Cape Cod place you refer to is 80 to 100 miles south of Boston—flat and sandy with warm swimming water. Not a bad place at all but a New Englander never speaks of Cape Cod and Cape Ann in the same breath. Actually, we think that both places are pretty nice.

Although there is still more to write, there are also eight more issues of *The Review* coming. So saying, please don't forget that the Class is anxious to hear about your activities during the summer, fall or any other time—a post card to your Secretary will do it. A happy Thanksgiving to each and every one of you and your families!—GEORGE WARREN SMITH, Secretary, E. I. du Pont de Nemours and Company, Room 1420, 140 Federal Street, Boston 10, Mass.

#### • 1927 •

I cannot think of a better way to record the 25th reunion than to submit herewith Joe Melhado's account of the event (at the reunion Joe was appointed class historian): "The years glide past on wings. Can 25 so soon have slipped away? As we revive old friendships here, we live again the days at M.I.T. Once more we gladly raise our steins and sing; we know it is fair weather, for here we are, good fellows back together."

The good fellows were there in force at the Oyster Harbors Club for 1927's reunion the week end of June 6 to 8. We counted 130 of them—almost half as many again as were able to show up five years earlier, for the 20th.

Bob Bonnar was the advance guard; he arrived at the Club on Thursday night, June 5, but they wouldn't let him in. Seems there was some problem about a liability insurance policy that didn't go into force until the next morning, and they were afraid Bob might sue them for a fortune if he got some bad ice. Bob was back at the crack of dawn Friday, and this time became officially the first at the reunion. He was also the last to leave. He and Glenn Jackson and Ed Dunn were the only three who stayed over until Monday.

Most of the crowd drifted in during the afternoon and evening on Friday. They came by auto and train and airliner and private plane. Deke Crandall even came part of the way on his own boat. They came from Boston and New York and New Orleans and San Francisco and points in between. Friday was a day without scheduled events. We spent it shaking hands, lifting elbows, swapping reminiscences, and bringing each other up to

date on our adventures — or lack of them — over the past 25 years. Come to think of it, what else is a reunion for? Late Friday evening, we watched movies and slides of previous reunions, to remind us what we looked like when we had sap in our veins, hair on our heads, and spring in our legs. Remember how we ran bases at the fifth reunion?

The sporting events began on Saturday. First to get under way was the fishing party, which drove over to Hyannis right after breakfast and set out for deep water on a chartered boat. Half a mile out into the bay, Bill Richards began to count noses and came up short. Back went the boat to pick up a carload of stragglers, who had stopped to let Harry Inskeep buy some slacks. Harry had an appreciative audience as he came dashing down the wharf supporting the slacks with one hand. The stragglers came aboard and the boat started off once more; it wasn't until the party returned that they found out about the second carload of stragglers, headed by George Taminosian, that stood on the wharf trying to make itself heard above the put-put of the departing boat while every man jack aboard had his eyes out to sea.

The water was rough, but the fishing was good. Ned Fletcher pulled in sea bass and porgies as fast as he could throw his line into the water, and easily walked off with first prize. Paul Vaughan was at the end of the parade, with not a single nibble — not even a sea robbin or sand shark. Ed Damon distinguished himself by piloting the boat for a time and finding all the roughest water — but in justice to Ed it should be recorded that it was after he had relinquished the wheel to the professional captain that some of the boys decided they didn't want their breakfasts after all.

After the fisherman had left, the golfers got started. There was a big turnout for the golf, but the scores left no doubt that we've all reached the stage where we play for exercise rather than glory. L. B. Peterson, with an 86, scored the low gross and had the only respectable score; no one else was near him. R. E. Paine, at 93, had second lowest gross, with practically everyone else struggling to break 100. Prize for low net went to John Oliver Collins, with Frank Staples as runner-up, followed by Luke Bannon, Jim Lyles, Russ McCassey, Jim Pilkington, and George Saliba, in that order. Ezra Stevens was so busy running the tournament that it affected his game; he scored the high net, and Don Spitzli the high gross. Dick Cheney won a prize for collecting the most 7's; and our President, Jim Lyles, distinguished himself as the most spectacular in-and-outer, slipping a birdie in between a couple of 7's.

Golf differs from tennis in that golfers walk up to a ball and hit it, while tennis players run. That probably explains why Maurice Davier had so much trouble corraling enough tennis players to organize a tournament and justify the handsome trophies he had provided. Maurice was an optimist; he had accumulated a supply of tennis balls for a big contest, and no one would take them off his hands. King Gustaf of Sweden used to play tennis

when he was past 80, but he was made of sterner stuff than most of us.

Russ McCassey — Iron Man McCassey — was the exception. It was only two months since he had been flirting with death when his plane, in which he was flying alone, stalled in mid-air and then turned somersaults in a plowed field. That was on Easter Sunday, a day for celebration of a major miracle, and it was certainly at least a minor miracle that Russ was with us for the reunion. On top of that, he played 18 holes of golf Saturday morning — and played a creditable game — won the tennis doubles with Bob Dexter, and was good enough in the tennis singles to reach the finals. It was Sunday morning before the finals could be played, and Russ made a noble effort, but Les Weed was even better. Les did not lose a game in the singles until he met Russ, and he earned his victory over Russ to take the singles trophy. Maurice announced that the 25th would be the last reunion to have a tennis tournament, but he was immediately overruled. McCassey and Weed agreed to replay for the singles championship of the Class — in wheelchairs, if necessary — at the 50th reunion, and Dick Cheney pledged a prize of \$100 (in 1977 dollars) to the winner. The last we saw of Dick, he was still wrestling with the mathematics of how much he'd have to put in the bank when he got back to San Francisco to reach \$100 with interest added by 1977.

The general sentiment seemed to be to make the 25th the last reunion to include a softball game, also. Ralph Stober and George Bergman managed to dragoon enough players to make two full teams, plus a few substitutes, but the players didn't seem to be running out the hits, and the fielders didn't seem to be covering ground, quite the way they had in the movies of previous reunions. (Do you suppose someone speeded up the projector?) The final score was 18 to 5, and Harlow Sisk, the umpire, won a special prize for the greatest contribution to the winning team's victory. Art Connolly was the winning pitcher; other members of his team were Jack Boyle, Hector Moineau, Lew Baker, George Bergman, Judas Priest, Shorty Newell, Frank Rhinehart, Frank Massa, Harry Franks, and Bill Richards. Ned Fletcher, captain of the losing team, did a creditable pitching job but didn't get much support from the fielders, and Carl Davies caught for the losers. Dy Dyson, as scorekeeper, managed to follow the game through all the confusion, and earned his special award.

If tennis and baseball have now become spectator sports for the Class of '27, there's a ready substitute available. Alf Berle had no trouble getting plenty of contestants for the horseshoe pitching. We're a little new at that, and the scores were nothing to brag about, but we'll be getting more practice now, and it will take some real pitching to win at the 20th reunion. Fred Willcutt carried off top honors, with Dike Arnold second and Bruce Sherrill 28 taking third; but Bruce had to work for his award, in a play-off of a three-way tie. Ray Hibbert won a special prize in the horseshoe contest, for reasons best not recorded.

A bridge tournament had also been scheduled, under the chairmanship of Elwood Church, but it failed to come off. Elwood couldn't find anyone who wanted to sit still long enough — we're not *that* old yet.

The class picture was taken Saturday afternoon, just before the banquet — which was, of course, the high spot of the week end. The food was good, and the beer had an extra twang when we drank from the specially designed reunion steins. (Those of you who were unable to get to the reunion ought to get yourselves one of those steins — Adv.)

Jim Lyles started the after-dinner ceremonies by dramatically tearing up his prepared speech, after which he undramatically gave the speech anyway. The so-and-so had memorized it. He announced the appointment of Bob Bonnar as chairman of the 30th Reunion Committee, with Glenn Jackson assisting him — which means the 30th should be a good reunion, since the same two who headed up the 25th will be running things again. He also named Don Spitzli as custodian of all class and reunion pictures, including movie film, and Joe Melhado as class historian. (Incidentally, if any of you have movies or stills to contribute to Don's collection, send them along to him at 24 Oak Ridge Avenue, Summit, N.J. If you want them back, he'll have copies made and return them to you; and there are prizes for the best movies and best stills. Also, your historian will welcome any contributions to the class history, and particularly anything which will supplement the stories of previous reunions which appeared in the 25th Reunion Book. The address is 24 Rodney Road, Scarsdale, N.Y.)

The one serious moment of the evening occurred when, at Maurice Davier's suggestion, we paused for a minute of silence in tribute to those classmates whom we shall not see again. The athletic awards were made by the sports chairmen, and the two Technology chairs, which had been raffled off, were awarded to Dave Truax and Bert Nadler. Other awards included one to Nat Cohn, as the youngest class member present; one to Bill Kaplan's daughter Jeanne, as the class baby (born 1927); one to Art Connolly, as the father of the youngest child of the Class (his sixth arrived just before the reunion and beat out Joe Burley's six-month-old daughter); and a special award to Ezra Stevens as the latest of the Class to abandon bachelorhood (November, 1950).

Glenn Jackson then passed out some leis which Ralph Johnson had sent from Hawaii (and you should have seen the look on the airline clerk's face when Glenn told him to watch for five Hawaiian leis that were being flown in for the reunion). Finally, Jackson himself was awarded a Technology chair for the tremendous amount of time and effort that he had put into making the reunion the huge success it was.

No one went to bed early after the banquet; it was almost our last chance for another five years to enjoy the comradeship of those who had been friends for so long a time. Sunday, after the tennis tournament, the reunion ended with the



traditional clambake on the club grounds.

It's a tough job to get a complete list of all those present at the reunion, and if anyone has been skipped from the following list, he has our apologies. We checked the club register and the class registration desk, we added the names of those we had seen and talked with, but who had not stayed at the club or registered with the committee; we searched through the reunion picture for anyone we might have missed; and we went through the list of those who had announced their intention of coming, asking all and sundry whether anyone had seen the apparent no-shows.

Incidentally, there were only five of those who promised definitely to come who found at the last minute that they were unable to make it. One of the five was Count Enger, who had come all the way from Oslo, Norway, to be with us, only to be hospitalized in Boston by the recurrence of an old ailment he had acquired while with the Norwegian resistance movement during the war.

Here, then, is the list of those present at the 25th reunion of the M.I.T. Class of 1927 — and if you do find any omissions, will you let us know so we can set the record straight: Andrew Anderson; F. E. Anderson; D. C. Arnold; L. F. Baker; F. S. Badger; L. E. Bannon; C. T. Barker; K. F. Beckley; G. W. Bergman; A. K. Berle; F. A. Bianchi; R. M. Bigelow; A. N. Billings; S. E. Blandford, Jr.; J. R. Bonnar; J. J. Boyle, Jr.; S. J. Bugbee; E. G. Burgess; J. C. Burley; F. W. Byron; G. L. Calderwood; R. W. Carr; Edward Chase; R. L. Cheney; E. A. Church; Fordyce Curnburn; Nathan Cohn; L. H. Coffin; J. F. Collins; J. O. Collins; A. J. Connell; A. G. Connolly; F. J. Crandell; J. D. Crawford; E. H. Damon; P. E. Darling; Maurice Davier; C. G. Davies; L. W. Day; R. G. Dexter; J. B. Drisko; E. T. Dunn; H. R. Dyson; J. D. Eldert; H. A. Emerson; H. W. Fisher; E. F. Fletcher; H. E. Franks; B. A. Gillies; L. B. Grew; R. W. Hancock; J. S. Harris; R. E. Harrison; R. P. Hawkins; R. F. Hibbert; E. C. Hinck, Jr.; P. C. Hitchcock; P. A. Hodges; J. H. Hopkins; C. H. Hurkamp; G. C. Houston; H. B. Inskip; G. D. Jackson, Jr.; H. G. Johnson; A. L. Jacobson; William Kaplan; E. A. Leach; D. G. C. Luck; J. A. Lyles; Francesco Marcucella; E. A. Massa; R. E. McCassey; J. H. Melhado; F. A. Mesker; D. C. Metzger; F. L. Meyer; C. W. Meytrott; H. A. Moineau; H. J. Moser; R. A. Nadler; H. W. Newell; G. E. Onishi; R. E. Paine; W. G. Payne; R. M. Peirce; L. B. Peterson; J. P. F. Pilkington; W. F. Priest; W. M. Puffer; L. H. Rasmussen; F. E. Rhinehart; W. H. Richards; M. P. Robbins; W. J. Rudge; T. F. Russell; G. J. Saliba; C. A. Sanborn; B. E. Sherrill; Barnett Silveston; H. P. Sisk; A. C. Smith; C. C. Smith; K. A. Smith; J. B. Snediker; F. D. Sparre; D. H. Spitzli; F. C. Staples; E. F. Stevens; R. W. Stober; D. E. Sullivan; C. F. Sweet, Jr.; J. A. Swift; A. J. Tacy; W. L. Taggart, Jr.; R. W. Talbot; G. R. Taminosian; D. E. Truax; J. G. VanDerpool; P. S. Vaughn; R. C. Wallace; E. W. Ward; L. J. Weed; R. P. Westerhoff; C. H. Weis; F. W. Willcutt; R. Wise; L. B. Woolfenden; H. O. Woods; G. B. Yudkin.

There are still copies of the class book available. Send your check for \$8.50 to Glenn D. Jackson, North Carolina Finishing Company, 93 Worth Street, N.Y. — JOSEPH S. HARRIS, *General Secretary*, Aviation Department, Shell Oil Company, Inc., 50 West 50th Street, N.Y.

## • 1928 •

A count of the reunion questionnaires which were mailed to everybody in the Class on June 23 showed an overwhelming vote in favor of the "on campus" reunion. Thus, The Class of 1928 is going ahead full steam with plans to conduct the first "on campus" reunion in the history of the Institute. The total vote was as follows:

Those in favor of the "on campus" reunion — 165, or 86.4 per cent. Those in favor of the type of reunion we have had in the past — 26, or 13.6 per cent. Seventy-eight of the men who have attended past class reunions voted on this question as follows: 63, or 81 per cent, voted in favor of the "on campus" reunion; 15, or 19 per cent, voted in favor of the type of reunion held previously.

From members of the Class who have never attended a reunion, we received 113 ballots. Of this group, 102, or 90 per cent, voted in favor of the "on campus" reunion, and 11, or 10 per cent, voted in favor of the "off campus" type.

The vote on the question of inviting wives was 85 per cent *yes*, and 15 per cent *no*. The question of inviting children over 10 years of age was closer with 57.4 per cent voting *yes* and 42.6 per cent *no*.

The reunion committee will be announcing plans in the near future. In the meantime, we hope everyone will plan to come to our 25th reunion at Cambridge next June (Friday, June 12, through Monday, June 15, 1953).

A recent note from Tommy Larson advises he is still with Carbic Color and Chemical Company as New England manager with offices in Providence. He states he is living about 10 miles from Providence in Barrington, R.I., and although his small town has a number of M.I.T. men, Al Puschin is the only one besides himself from the Class of '28.

John Praetz has responded to our request for news with the following letter about the activities of the Chicago M.I.T. Club during the Centennial of Engineering in September: "I have been elected president of the M.I.T. Club of Chicago for the coming year and Bob Wise was elected a new director. Bob is a partner with Booz, Allen and Hamilton, the nationally-known business management firm, while I head up Hotpoint's national parts and service operation as manager of their Product Service Division.

"Classmate Bud Gray, President of Whirlpool at Benton Harbor, Mich., continues as director through 1953. By the time this appears in *The Review*, which I presume will be the November issue, the M.I.T. Club of Chicago will have fired the opening gun on its fall program in conjunction with the Chicago Centennial of Engineering, September 3 through 13. The club activity will be in the form of a social and filet mignon dinner at the University Club in Chicago's Loop on Sep-

tember 9.

"I am general chairman for this event and we have undertaken an aggressive publicity program to invite all M.I.T. Alumni attending the Centennial to attend our club dinner. We hope that all the members of the Class of '28 who may be out here for the Centennial will join us on that evening."

Ralph Johe has forwarded to us a letter from Ernie Knight who has been stationed in Japan since last December. Ernie just returned to his post as chief of Supply Services, at headquarters of the Japan Air Defense Force in Nagoya, after spending four months on a manpower Survey Board to all the bases and sub-bases in Japan. Ernie states that he was recalled to active service last June and hopes to return to his home in Assinippi, Mass., within a few months time.

Edward Hartshorne has been appointed manager of the research and development department, Olin Cellophane Division, Olin Industries, Inc. He has been with Olin since 1934 when he joined the Western Cartridge Company Division as a metallurgist. David N. Hauseman has been appointed a marketing executive of the Davison Chemical Corporation. He retired from the Army as a brigadier general in 1946 after 29 years of service. General Hauseman resigned as president of Houdry Process Corporation of Philadelphia to join Davison's executive force.

An editorial in the January first edition of the Washington, D.C., *Star* on the subject of Washington's water-fluoridation program quotes the remarks made by R. S. Harris at a symposium on water fluoridation conducted by the American Association for the Advancement of Science. Dr. Harris declared that fluoridation is a calculated risk that is "not without its hazards" and cautioned against haste in adopting it without further study of the poisonous effects of considerable quantities of fluoride in the human body. "Not enough scientific study has been done," he warned.

Walter F. H. Mattlage has been promoted to manager of the Fabrics Division of the Fabrics and Finishes Department of E. I. du Pont de Nemours and Company. A Du Pont news release dated February 14 described his background as follows: "Mr. Mattlage . . . joined Du Pont as a mechanical engineer in the Fabrics Division's Newburgh, N.Y., plant in 1928, and by 1937 had risen to production superintendent of the plant. He was transferred to Remington Arms Co. in 1941, and during the war years was successively superintendent of production at the Lake City ordnance plant near Independence, Missouri; works manager of the Utah ordnance plant, Salt Lake City, Utah; and works manager of Remington Arms' Bridgeport, Conn., works. He became director of production of Remington Arms Company in 1948, and vice-president and director of production in November, 1951." — GEORGE I. CHATFIELD, *Secretary*, 49 Eton Road, Larchmont, N.Y.

## • 1932 •

I am sure all of us that attended our 20th reunion at Lenox, Mass., this past

June were unanimous in agreeing that it was a grand success. Much credit goes to the hard-working Reunion Committee: Tom Sears, Chairman; Bunny Nealand; Herb Ross; Lou Vassalotti; and Joe Welch; with our redoubtable President, Don Gilman, and Secretary, Chippy Chase, ex officio, for having everything in tiptop shape.

The only regret to dampen the enthusiasm of the fine turnout of 68 members of our Class was that there weren't more that could come. Unless your new Secretary misses his guess very badly, our 25th should prove a substantial record breaker.

The little town of Lenox treated us handsomely, not only with good accommodations at the Curtis Hotel, but with an unusually beautiful spring week end, and if any of you have not been to Lenox, which is in the Berkshires near where the Boston Symphony holds its summer Tanglewood concerts, don't miss an opportunity should one arise.

Some of the more hearty of us played golf for stakes that would rather indicate we were doing better financially as a Class than has been shown by our support record at M.I.T.! Others chose to philosophize on one thing or another while wandering about soaking up the local sunshine. The high point was perhaps the cocktail party and banquet, though some of our more virile classmates continued on their merry plateau until the small hours of the morning, much to the distress of the more conservative folk. Professor Douglass made one of his usual outstanding after-dinner speeches—this one clocked at exactly 27 seconds.

The horse-racing game in the evening provided not only excellent entertainment, but again showed a willingness to persevere in the face of all odds, that gives promise of raising our Class to an outstanding level of performance. A quiet Sunday morning was followed by a noon clambake on the lawn of the hotel, which provided a windup that I am sure none of us will forget.

For those of you who couldn't come, we have nothing but regret, not only for missing such a good time, but that we couldn't renew acquaintances. We couldn't find anyone that thought we had changed much since the Institute, except to reflect perhaps a little more accumulation of wisdom. As usual, the reunion was a financial success. We now have over \$300 in our class treasury of accumulated reunion profits.

We decided that our officers of such long standing since graduation, Don Gilman, President, and Chippy Chase, Secretary-Treasurer, had well earned a rest, and a new group of officers were elected to carry on until the 25th reunion: Tom Sears, President, Bob Semple, Secretary, Bill Barker and Rolf Eliassen, Assistant Secretaries, and Bunny Nealand, treasurer. Joe Welch continues as class agent and John Lawrence as chairman of the Special Gifts Committee for the Alumni Fund. A sincere vote of thanks was given Don and Chippy for their work, which is richly deserved. Your new officers hope that they will be able to carry on in as satisfactory a fashion.

Our reunion questionnaire brought in

much information on our classmates, which is quite impossible to cover in this first set of notes. The following covers some of the ground, and the reserve information should keep the Secretary busy for some time: Our redoubtable Ex-Secretary probably hasn't referred to himself since graduation, so it is high time we are brought up to date on Chippy Chase's activities. He married Alice Werner in 1937 and their boy, Peter Chase, was born in 1946. He has been with the Bakelite Company at Bound Brook since 1939, with major emphasis on quality control of the many plastic materials made there. His present assignment is quality co-ordinator, Works Managers Department. His address is 1424 East 7th Street, Plainfield, N.J.

Don Gilman has done just as good a job in business as he has for the Class. He is vice-president of Mississippi Products, Inc., Jackson, Miss., a wholly owned subsidiary of Sears, Roebuck and Company, making radio, T.V., sewing-machine cabinets, desks, and so on. If you remember Doris Ekstrom, whom Don took to all the important parties at the college, you remember his wife. They have a son, aged 12, and a daughter, aged eight. Don's boy has M.I.T. third on his list of colleges because he doesn't want to have to wear shoes, and his daughter seems to want to become a lady wrestler, thinking probably that Wellesley would be the best college to demonstrate such talents.

Don reports that also living in Jackson is John Turner '31, practicing his profession as an architect in his own firm, and must be outstandingly successful if, as Don says, one can judge by the quality of his golf, which shows obvious neglect. Bill Hallahan has just been promoted to the rank of colonel in the Reserve Engineer Corps. He is commanding officer of the 329th Engineers Maintenance and Supply Group, a reserve troop unit. With his wife, the former Frances A. Bourque, he lives with their two children at 14 Lakeshore Avenue, Beverly, Mass. Joe Welch has just joined Dewey and Almy Chemical Company as co-ordinator of sales in the East, with headquarters in Cambridge. Dub Rash has moved over to Monsanto Chemical Company from Lambert Pharmacal, where he has been vice-president. He has been named sales development manager of the company's new Merchandising Division. Dub continues to live with his wife and family in St. Louis County. He had hoped to be at the reunion, but this move interfered with his plans.

Wendell E. Bearce, III, Box 241, St. Clairsville, Ohio, is now employed by the Hanna Coal Company of Pittsburgh, Pa. At the time of the reunion he had five children—two girls and three boys—but by this time there should be another addition. Since graduation, Wen has been employed by the Pittsburgh and Midway Coal and Mining Company, Fairplay Gold Mines, Ford Motor Company, Grangers Manufacturing Company, Aroostook Trap Rock Company, National Gypsum Company, CoPlay Cement Company, and Mississippi Lime Company, in the order named.

John J. Brown is with the U.S. Industrial Chemicals and has been living in

Baltimore, Md., for the past six years. His address is Post Office Box 1797. Ben Chadwick is the owner of the B. R. Chadwick Hardware Company in Marblehead, Mass., and lives at 86 Washington Street in that town. His wife is the former Marion L. Balmer and they have five children: four boys and one girl. Ben is a director of the National Grand Bank in Marblehead.

Lester Glickman is chief of the Materials and Surveillance Division, Quality Control Department, at the U.S. Navy Central Torpedo Office, Newport, R.I. He has two children, Elaine, 10, and Larry, six, and resides at 392 Broadway, Newport. Still Haynes has been employed since 1936 by the New Jersey Zinc Company first at Palmerton, Pa., and since 1941 at Depue, Ill., where he now lives. Prior to 1936 he barnstormed several jobs. Until 1948 his work was supervisory in the manufacture and refining of zinc and sulphuric acid. Since 1948 Still has been in charge of the testing laboratory. In 1938 he married Dorothy Schlesman of Allentown, Pa., and they have one girl, 11, and one boy, eight. He has held several offices in the Depue Boat Club and is a member of the Board of Education.

Harry L. Johnson is purchasing agent for the Electric Appliance Division of Westinghouse Electric Corporation, which is now making Navy jet engines but will manufacture refrigerators later on. Harry has been in industrial purchasing with Westinghouse for the past 12 years. Started as assistant buyer in South Philadelphia, then buyer at Lima, Ohio, assistant purchasing agent at Pittsburgh, Pa., purchasing agent at Beaver, Pa., and moved to Columbus, Ohio, the first of this year to help start up a new plant of two million square feet which will make 4,000 refrigerators per day. Harry says that he enjoys purchasing work very much and recommends the field to men with engineering background who have a liking for business and economic problems with a dash of human relations.

George W. Muller lives in the farmlands of Chester County, Pa., and commutes to Philadelphia where he is employed in National Sugar Refining. Dick Park is a project engineer at the Fuller Brush Company, Hartford, Conn., specializing in industrial brushes, special machinery, and special products. From 1932 to 1936, Dick was with the Hartford Empire Company, now named the E. M. Hart Corporation. From 1936 to 1945, he was a project engineer with the Hamilton Standard Propeller Division of United Aircraft Corporation. Dick says that at Fuller Brush, which is a rather unusual company, he is carrying through a project on the design, building, and test of a small gasoline engine up to the point where management decided not to enter this market. Following this, they explored the field of household vacuum cleaners and such for possible additions to the line. Another delightful diversion, Dick said, was the occasional designing and building of hollow aluminum masts of 45-foot length and up for sailboats. Now, however, he is pretty much involved in the engineering of the power-driven industrial brush part of the business.



Bill Pearce lives at 21 Chestnut Street, Sharon, Mass., has three daughters: Anne, 13; Betsy, 11; and Carol, 3. Bill is self-employed as manufacturer's representative for the Graphite Metallizing Corporation of Yonkers, N.Y., and the Monitor Controller Company of Braintree, Mass., traveling all of New England except Connecticut. He is a past president of the Sharon Rotary Club and is active in the American Institute of Electrical Engineers, Boston section. Nicholas E. Rothenthaler has been with the Ford Motor Company for the past 17 years and is presently manager of production, programming, and control of the Steel Division. Nick has been married since '32 and has twin daughters, Anne and Judy, 13. His present address is 9 Edgerton Lane, Dearborn, Mich. Nick saw Bill Holst in New York City last year and says that he is doing fine with Standard Oil of New Jersey. Also that Bill is married and has two daughters.

Elwood W. Schafer, of Course VI, lives at 1142 Highland Avenue, Abington, Pa., and is manager of the Hatboro, Pa., plant for National Union Radio Corporation of Newark, N.J. In 1941 he married Eileen McCloskey and they have two children — Richard, nine, and Paul, three.

Bob Thompson is married and has two children, both girls, 11 and eight. Has been with the Dorr Company for 16 years. This firm is engaged in selling engineering services and equipment in the chemical, mining, and sanitary engineering industries. He is assistant manager of a new sales division, created to commercialize a recent new development for roasting oils. — ROBERT B. SEMPLE, *Secretary*, Wyandotte Chemical Company, Wyandotte, Mich. WILLIAM H. BARKER, *Assistant Secretary*, 45 Merideth Drive, Cranston, R.I.

### • 1934 •

Lou Holladay has been appointed manufacturing superintendent of E. I. du Pont de Nemours and Co., Inc., Electrochemicals Department at Buffalo, N.Y. Lou has been with E. I. du Pont since 1934.

Father Joseph Hahn recently worked with Bing Crosby in producing a motion picture called "Kyoto — Saturday Afternoon." The picture was produced by the members of the Maryknoll Order of Missionaries and depicts the work of a priest in aiding the sick and native inhabitants stung by deadly scorpions. The picture was narrated by Bing Crosby.

Herbert R. Schwarz was recently appointed to the newly created position of director of research and fabric development of Wellington Sears Company. He joined Wellington Sears in 1935 and has been active in the development of both cotton and synthetic industrial fabrics. He collaborated closely with George B. Haven'94 on the fourth edition of Haven's widely used *Handbook of Industrial Fabrics*.

R. C. Gunness, who is assistant general manager of manufacturing for Standard Oil Company of Indiana, recently took part in a joint civilian orientation conference, the high spot of which was a ride in

a jet-powered Navy airplane at Pensacola, Fla. He said he enjoyed the high-speed ride immensely. The purpose of the conference was to give business and industrial leaders an understanding of the country's defense problems. Dr. Gunness has an important part in planning the construction work for Standard. The amount involved each year runs into millions of dollars. He is living with his family in Flossmoor near Chicago, Ill.

Colonel Richard L. Scott has been named deputy commander for the Air Force Finance Center. For four months Colonel Scott has been deputy chief of staff of operations at the center, and before that he was chief of finance division of the Air Materiel Command. The American Polymer Corporation of Peabody, Mass., has announced the appointment of Leonard Shapiro as manager of its textile division. Leonard is well known for his work on textile resins, shrinkage-control processes, water repellents, and surface-active agents. He has published many papers on these subjects and is a frequent contributor to the *Rayon and Synthetic Textile Journal*. After receiving his master's degree from the Institute, Leonard was research assistant to Professor E. R. Schwarz'23. He was then research director successively for Interlaken Mills, Warwick Chemical Company, Alrose Chemical Company, and Synthron, Inc.

John F. Haines has been appointed chief engineer of McCauley Industrial Corporation, upon the completion of a merger agreement between Haines Designed Products Corporation and McCauley Industrial. Kenneth L. Dorman has been named director of the chemical laboratory of Goodall-Sanford at Sanford, Maine. He has worked for Pacific Mills, Interchemical Corporation, and Lotte Chemical Company.

Charles A. Cogan has been appointed assistant general superintendent of the Casper, Wyo., refinery of the Standard Oil Company of Indiana. Previously, Charlie was superintendent of the projects, capital expenditures, and miscellaneous contracts sections in the manufacturing department of the general office.

Roy Fugal has been elected chairman of the Milford Red Cross of Milford, Conn. Roy is general manager of employment production for the 123 plants of the General Electric Company. He is a member of the American Psychological Association and a certified psychologist in the State of Connecticut. He is also a member of Rotary and chairman of the Bridgeport Education Committee, vice-president and chairman of the Connecticut State Apprentice Council, and vice-chairman of the State Vocational Association. He is chairman, in Woodmont, of the School Building Committee whose efforts brought about the erection of the new Seabreeze School there.

Jean M. Raymond of Montreal has been nominated by the Alumni Association of M.I.T. to the Corporation's Visiting Committee for the Modern Languages Department. Daniel D. Strohmeier of our Class is now vice-president and head of Bethlehem's shipbuilding division at the Fore River Shipyard. Frank A. Nicolì was

recently elected president of the M.I.T. Club of the Connecticut Valley.

We are pleased to announce the marriage of George Reid Jordan to Grace Hale, daughter of Mr. and Mrs. Moses S. Hale of Denver, Colo. George is a building contractor in Washington, D.C. — JOHN G. CALLAN, JR., *General Secretary*, 184 Ames Street, Sharon, Mass. ROBERT C. BECKER, *Assistant Secretary*, Chile Exploration Company, Chuquicamata, Chile, S.A.

### • 1937 •

All I can say for those of you who missed the reunion is: "Too bad! You'll never know what you missed." Actually, all those I saw were having a wonderful time — all the time. Thanks to the fine work of the committee and to the general conviviality of all those present, a marvelous time was had by all. We were blessed with perfect weather which, combined with the fine facilities of the Weekapaug Inn, contributed greatly to the over-all success of the affair. We must all band together to be sure Cleon Dodge gets his salt water at the 20th. We did manage to get in a short business meeting on June 7 right after lunch, but it was abbreviated by the call of golf, swimming, tennis, and so on.

However, before the more important things took over, we did manage to (1) hear Joe Heal's report on the Gift Committee: Some 40 people have purchased insurance for the Institute or pledged in other ways \$31,000 as a start toward our gift of \$100,000 on our 25th; (2) pass Dick Young's motion to appoint a minimum of 15 regional chairmen to contact personally members of the Class; (3) pass Bob Thorson's motion to contact all present by signed cards indicating what insurance or gifts or pledges will be made at this time; (4) discuss various methods of giving and assigning securities, stretching out insurance payments, and other ways to broaden the base of the gift; (5) pass Jerry Salny's motion to have the Gift Committee investigate the feasibility of modifying the insurance plan to provide for 15- or 20-year payments instead of 10; (6) and finally get so restless as to adjourn forthwith without even hearing a word about the class finances or the pretty little speech I had made up about the need for election of new officers. Not that I object to serving — which I am very glad to do — but that I believe the Class should have a chance to express itself at each reunion (or oftener if necessary). I should like to hear from you — a card will do — letting me know how you feel about it. At the same time I'll send you a copy of the financial report I had prepared and never had a chance to give, if you ask for it.

The high light of the reunion was the banquet on Saturday night where the results of the questionnaire were read. Some of the most interesting were: present annual income averages \$11,500, ranging from a low of \$1,500 to a high of \$40,000; net worth averages \$41,500 ranging from 0 to \$500,000 (with a median of \$25,000); the Class is much more religious now than five years ago, probably the influence of children; and (based

on their own estimates) the Class has a higher percentage of hair now than five years ago! 121 of 154 reported owning their homes, whose average value was \$21,500. During most of this, Dodge, having lost his "salt water," was diligently searching for it and enlisting the aid of anyone who would listen. The Ed Hobsons and Ralph Chapins cooked up some marvelous gifts for various members. Some of these (I didn't get down what all the trinkets were) were: Most courageous — Mary Metcalf; aviator — Herb Goodwin; class gift whipper — Joe Heal; best Democrat — Art Zimmerman; newest married — Al and Abbey Faatz; largest waist — George Randall (tape measure); changed most — Phil Dreissgacker (comb); changed least — John Nugent (who by the way is commodore of the Cottage Park Yacht Club); longest winded — Dick Young (that's all right, Dick, they didn't give me a chance); came longest distance — Ernie Ferris from Oak Park, Ill.; letter writer — Al Bush; most children — the E. V. Coreas (five); "big-time operator" — Jerome Salny; fisherman — Joe Sousa; greatest optimist — Phil Bliss (came to reunion with \$.20 in pockets); best sailor — Ralph Webster; athlete — Bob Thorson; youngest child — Harry and Mel Goodwin; lost most hair since 10th — George Randall; farmer — Ralph Chapin; a balloon blowing contest between Cleon Dodge and George Ewald was won by George; a blue ribbon went to Phil Peters; I got a new head of hair (a mop); a hairbrush went to Art Zimmerman; and a bottle of lipstick remover to the most eligible bachelor, George Wemple.

Dave Fulton wrote us from Paris that the reunion was probably out but that he is having a wonderful time and rolling up grand experience with the Lummus Company; he is manager of the French subsidiary company, having served here until 1948 in process engineering, plant start-up operations, project development, and sales, all in connection with the design and construction of petroleum and chemical plants, mainly in fields of lubricating oil, catalytic cracking, and synthetic rubber. Sorry you couldn't be with us, Dave! Dave McLellan, who is now living in Cicero, Ill., also sent us a letter that Phil Peters read. I don't have a copy of it now but will get one for next issue.

John H. Fellouris sent us a nice letter from Greece where he is with the Greek War Relief Association. He says: "It may be of interest to our classmates that I am still located in Athens, Greece, and still with the Greek War Relief Association, constructing hospitals, sanatoriums, health centers, water supply projects, and so on, throughout Greece and also doing some general welfare and public health work. Although I came to Greece in late 1946 as the director of the Technical Services Division of the organization, since August, 1950, I have been promoted as the general director of our foreign operations, and thus I am in charge of our over-all operations in Greece. Therefore, now besides being the chief engineer of the organization, I find myself doing quite a bit of administrative work and liaison work with Greek Government officials

and with the officials of the ECA Mission to Greece (now the MSA Mission to Greece). Incidentally, I would also like to take this opportunity to express to our people back home what a grand job the ECA Mission to Greece has done. I was here when they first started operating in early 1948, and what they have done for Greece considering the really adverse conditions that they found — guerrilla warfare up through practically 1949, unsteady economic conditions, inflation, food and material shortages, destroyed homes, roads, bridges, factories, and so on, as a result of the war, the occupation and the Communists — cannot be overstated. Greece still has a long way to go but with the help of the American Mission and with the various philanthropic and relief organizations such as mine working in Greece, I know that Greece will eventually be able to stand on its own feet again. The Greeks from ancient days have been and are a great people, have always been willing to fight and die for democracy and we know that we have in them a firm, loyal, fighting ally. They are deserving of every help that we can all give them. Should any of our classmates be coming through Athens, I would be delighted to have them call on me." — WINTHROP A. JOHNS, *Secretary*, 34 Mali Drive, North Plainfield, N.J. WALTER T. BLAKE, *Assistant Secretary*, Pillsbury Mills, Research and Technical Development Department, Pillsbury Building, Minneapolis 2, Minn.

## • 1938 •

From Donald Stone Macdonald, American Consulate General, Istanbul, Turkey, comes the announcement of the birth of a son, Thomson Stone Macdonald, December 27, 1951.

Harry Saunders writes: "I am now with the American Tel. and Tel. Company, Operating and Engineering Department, in New York City, and am engaged in the application of protective devices to telephone circuits." We have also received a letter from Paul Des Jardins who says: "Although I was involuntarily ordered back to active duty in the Navy last June, the work which has been assigned to me as material planning superintendent of the U.S. Navy Shipbuilding Scheduling Activity is right along the lines for which both my education and experience are suited. I was selected as one of a nucleus group of officers who last year began building this Activity from scratch. On April 30, 1951, the U.S. Navy Shipbuilding Scheduling Activity was created. It was expected that within the first year the Activity would grow from nothing to a staff of approximately 25 officers and 500 civilian personnel. To date we have 21 officers and slightly over 400 civilian personnel. The Activity is engaged in an attempt to tie the production lines of industry in with the production of ships required by the Department of Defense. In other words, we act as a central scheduling agency and are engaged in what amounts to a production control job covering all vessels being built or converted for Navy, Army, Air Force, or Coast Guard use.

"My part in this work involves our re-

lationship with manufacturers providing equipment with these vessels. This broad aspect enables me to dip into the difficulties being experienced by manufacturers in producing for the Department of Defense. At present it appears as though there will be problems of this nature in the Boston area approximately June 9. I realize that is one of your busiest days, but I hope to be able to at least get a chance to wave to you." Apparently Paul didn't make Alumni Day after all for the class registration lists only Mead Bradner, A. Louis Bruneau, Anthony Chemel, F. Tenney Clough, David L. Morse, John J. Phillips, Jr., Severino J. Rugo, Donald P. Severance, Edward K. True, and Harold McCrensky.

Rafael Sanchez y Casanova, Course VI, his wife Marguerita, and his 16-year-old son, Alberto, were in Boston for about a week the end of July and the first of August. Don Severance and he saw quite a bit of one another. With moderate luck Raffie hopes to be with us in June of '53. He is now plant superintendent of the one Portland Cement Plant in Cuba — the Cuban Portland Cement Corporation, Cayo Mason, Mariel, Cuba. Congratulations are in order for Arthur F. Gould who has been appointed head of the Department of Industrial Engineering at Lehigh. We also have news of a couple of '38 men in the Army. Colonel Samuel Smellow of Atlantic City, N.J., and Charlottesville, Va., has been assigned as ordnance officer of the United States forces in Austria. A graduate of the U.S. Military Academy at West Point, Colonel Smellow went to Austria from the Army War College at Carlisle Barracks, Pa., where he had been a student since August 1951. During World War II he served in the Southwest Pacific and the Philippines. Colonel Smellow holds a master's degree in business administration from Stanford University as well as a master of science degree from Technology. His wife, Marguerite, and their three children live at 1100 Park Street, Charlottesville. And it has also been announced that Major Harold Cude has graduated from the General Staff Course at the Army's Command and General Staff College, Fort Leavenworth, Kansas. Harold was formerly stationed at Fort Bliss, Texas, as an instructor in electronics. He holds the Bronze Star Medal and the Distinguished Unit Emblem — ALBERT O. WILSON, *General Secretary*, 24 Bennington Road, Lexington 73, Mass. *Assistant Secretaries*: DAVID E. ACKER, 210 Woburn Street, Lexington 73, Mass.; FREDERICK J. KOLB, JR., 211 Oak Ridge Drive, Rochester 12, N.Y.; RICHARD MUTHER, 116 West 67th Terrace, Kansas City, Mo.

## • 1939 •

This is the 14th edition of the class notes; it is the first to go to press without some form of contribution from the late Stu Paige. For the benefit of classmates who may have missed the earlier announcement, Stu died on March 28 after a brief illness. The Assistant Secretaries have agreed to carry on his work and herewith dedicate the entire 1952-1953 edition to our departed Class Secretary.

Press releases from the Standard Oil



Company have announced some personnel changes affecting John W. Mohlman and Edward G. Morin. Mohlman has been named group leader of information services in the research division of Esso's Whiting, Ind., laboratory while Morin has been appointed to the staff engineering group of the Process Design Division of Esso's Development Company. Morin recently returned from Rome, Italy, where he followed engineering work on Italian refineries.

Stanley C. Johnson has assumed the duties of chief abrasive inspector at the Norton Company in Worcester, Mass. He joined Norton as a member of its manufacturing training course after being with U.S. Steel Corporation. At Norton, Stan has served "time" in inspection, manufacturing control, quality control, and grading. He is active in the American Quality Control Society. His experience in bulk sampling should be of interest to other class members in related fields.

The Du Pont Company has announced that Marshall C. Guthrie, Jr., was promoted to assistant production division superintendent at the Belle, W.Va., plant. He joined Du Pont in 1939 and has been concentrating on nylon intermediates.

Irving Peskoe has been recalled by the Air Force and is now serving as legal officer at MacDill Air Force Base, Florida. In a recent letter, Major Peskoe stated that he was recalled to duty on the basis of his previous service; however, after reinstatement, he chose to work in his professional field, law. Major Creighton B. Olson, long-time airman from Belmont, Mass., has been assigned to Crew Training Air Force with headquarters at Randolph Air Force Base, Texas. Olie's work now deals with the most powerful jet combat aircraft.

Francis W. Sargent, now director of the Massachusetts division of marine fisheries, is working on legislation that will increase the size of the fishing net mesh, used by Boston's fleet of haddock trawlers, from 2½ inches to 3½ inches. This seemingly small change in mesh will have a marked effect on 15,000,000 undersized haddock. Each year this number of unmarketable fish are caught in the smaller nets and lost in the offal of a trawler. A larger mesh would permit them to escape and grow to marketable size.

Bob Pastene is apparently the first '39 man to make TV his business. He regularly appears in shows on "Studio One" and has acted in Broadway plays, including some Shakespeare with Maurice Evans. His press notices say that he is unmarried and that he attended Washington University after leaving Technology. Professor Ralph E. Meagher of the University of Illinois has been doing some startling work on electronic calculators. He is specializing on the so-called electronic brain.

The class registration for Alumni Day last June consisted of Bradley Bennett, Bill Brewster, Edwards R. Fish, Jr., Al Graffeo, Sig Oettinger, Al Rugo, Seymour Sheinkopf, and Oz Stewart, 2d. — *Assistant Secretaries:* GEORGE BEESLEY, 38 Homestead Road, Lynnfield Center, Mass.; MICHAEL V. HERASIMCHUK, Post Office Box 495, Bethlehem, Pa.

## • 1940 •

The Class of '40 is still making the headlines. The ranks of our bachelor members are still diminishing. There are three weddings to report this month. Thelma Jo Noble and James W. Follin, Jr., were wed on May 24. Jim is a physicist with Johns Hopkins University. Carol W. Shanklin and James Baird were wed in June. Jim is now working for his doctorate at Rutgers. Betty Jane Rogers and John G. Leschen were married July 26. John is in the metallurgy department at the General Electric Research Laboratory in Schenectady. In addition to these weddings, the engagement of June Margaret Craver and Franklin E. Penn was announced this summer. They plan a fall wedding.

As a corollary to the report of so many weddings, your Secretary is also happy to report two new arrivals. Doris and Sam Omansky are the proud parents of a boy, Michael Lawrence, arrival date June 9, while Shirley and Arnie Arch are the equally proud parents of a daughter, Adria Barucha, who checked in on April 28.

Although this was an off year for '40, nine of our classmates were present for Alumni Day. The members who "came back to Tech" were: Dick Berry, Bob Bittenbender, John Danforth, John Gray, John Kapinos, Dick MacPhaul, John Piotti, Wally Schuchard, and Marsh Wight.

Gerald McCaul has been promoted to general contracts manager of Simmonds Airplane, Inc., of New York. Previously to joining Simmonds Airplane, Gerry was with the Allison Division of General Motors and with the Taylor Turbine Corporation. Dick Spalding has been promoted to chief packaging engineer of corrugated package operations for Owens-Illinois Glass Company of Toledo, Ohio. Dick has been with Owens-Illinois since 1941.

Edward Williams, Jr., who received his M.D. from Meharry Medical College, passed the final examination of the American Board of Internal Medicine in July. Previously, Ed was made a fellow in cardiology at Washington (of St. Louis) University School of Medicine, and he received a similar honor from Harvard Medical School. Ed is now supervisor of medical service at Homer G. Phillips Hospital in St. Louis, as well as a clinical director at Washington University's Medical School. Dr. Myer Sharpe is now in the practice of radiology in Northampton, Mass. He received his M.D. from Harvard in 1944 and interned at Beth Israel Hospital in Boston and then served in the Army Medical Corps for three years. Myer received his radiology training at Columbia-Presbyterian Medical Center in New York and is certified by the American Board of Radiology in diagnostic and therapeutic radiology. Hyman Freedman who received his D.D.S. from Tufts College Dental School has opened a practice in Sharon, Mass. Previously Hy practiced in Dorchester and prior to that served in the Army. Gerald Forney, who did post-graduate work with us, has been appointed manager of American Cyanamid Company's new Jefferson Parish Plant near New Orleans. Gerald designed the \$50,000,000 plant which will manufac-

ture ammonia and acetylene among its main products.

The final item of the first issue of the 1952-1953 volume is a condensed version of "The House That Money Can't Buy," an article that appeared in the *New York Journal-American* on June 15, 1952. It concerns Hank Brewer of our Class who died on August 14, 1949:

"Let's begin with Hank Brewer. He had come to Brookhaven by way of Tech and the Sperry Gyroscope Co. He had met Ruth Stephens at a fraternity dance, 'pinned' her at a picnic the following week and married her a few months later. When they first came to Long Island with their daughters, Deirdre and Susan, they rented a home near the Sperry plant but they wanted a home of their own. One Sunday while driving through Babylon Hank spotted an ancient manse almost hidden from the street by man-high grass and weeds. Ruth was aghast when she saw the decrepit structure. The floor boards were rotted, split and loose. The plaster was cracked and huge gaps revealed the studs. The ceiling had caved in. There was no heating, no plumbing fixtures. 'Hank Brewer' Ruth snapped 'you must have rocks in your head to think you can rebuild this junk heap. Why you can't even hang a picture.'

"'Oh, I don't know, honey,' Hank said. 'Look at George Sabine. He built his own house all by himself. It took him only eight years of week ends, vacations and holidays.' They bought the ramshackle dwelling for a few hundred dollars in back taxes. Hank started working on it and called in his friend Ollie Howell who drew up plans for remodeling the house. Hank removed and glazed windows. Then he ripped out the partition between the small dining room and living room, making them one. Gradually he made the place so it would provide some sort of shelter. The night before they were ready to move in he and Ruth spent four hours building a set of steps any good carpenter could have made in a half hour. For the next year, Ruth attempted to run the household with two lively youngsters, a cat and a cocker spaniel. Every evening, after work, and on week ends and holidays, Hank donned overalls and went to work. There was never a time when there weren't boards, assorted tools and plaster mixings in the living room. Every night they went to sleep, talking and laughing about their nightmare abode. Once they were working on opposite sides of a wall when the plaster slid away, leaving them looking foolishly at each other. But Hank was determined to go on making a silk purse out of this architectural sow's ear.

"One day he told Ruth he had to work on another man's house. 'Remember my mentioning George Sabine who built his own home at Holtville? Well, they only moved into it last July, and it burned down just before Christmas. George's little daughter, Carol Louise, was lost. So the boys at Brookhaven have decided to build him a new home as a Christmas present. I signed up.' 'You would Thumper,' Ruth said. 'Helping others when you need help yourself.' So Hank suspended operations on his own home and went to work helping build a new

home for the popular guard. All told, 88 Brookhaven employees donated time to the project. Working only week ends, they put up a modern five room ranch-type house in less than three months. 'No money in the world could buy this place,' Mrs. Sabine said. 'It is a monument to Carol Louise.'

"Little did anyone realize that there would be a tragic sequel to the Sabine story — and so soon. Hank Brewer continued working every spare moment on his own home. August 6th was his birthday. He began it by giving a pint of blood to a fellow employee. He had had practically no fun for a year except for the laughs he and Ruth got out of their house, so he decided to hold an outdoor barbecue party. Next day, Hank felt woozy. Monday he was worse. Tuesday he was rushed to Meadowbrook Hospital, where they got the diagnosis — Hank had bulbar polio. When Hank heard the news, he characteristically remarked to Ruth: 'Thank God I wasn't near the kids. Call the boys at the lab who were at the party and tell them to take it easy.'

"His breathing stopped at 2 A.M. on August 14. Hank's body was sent for burial to Philadelphia, where he was born. After the services, Ruth drove to Boston with her mother and children. She stayed there a week. As she drove down Park Avenue in Babylon on her return trip she thought she was seeing a mirage. Her home, instead of being the drab, dirty yellow that it was when she had left, was now a gleaming barn-red, trimmed with white! The sagging porch had disappeared; concrete blocks were under the old foundation, and a new wing had been built — the ground floor powder room that Hank had planned but had never quite gotten to. That evening, Ollie Howell came over to tell her what had happened. Bud Lacey, who had also worked on the Sabine house, had suggested to Howell that they finish the house that had probably cost Hank his life.

"Immediately a group of men at Brookhaven, including grateful George Sabine, signed up and went to work that week end. For the next few weeks after Ruth's return, the old place swarmed with Hank's friends. 27 of the same men who had worked on the Sabine house also helped on the Brewer home. Two dozen more people from around Babylon pitched in too. The Lions Club, at many of whose shows Hank had performed, donated a refrigerator. Within a month the once condemned eyesore was transformed into a handsome, comfortable home. Hank's dreams were realized at last.

"Ruth Brewer knows that it is actually worth more than all the money in the world. A much finer substance has gone into her house than mere lumber and paint — Hank's own indomitable spirit, and the spirit of good-will and unselfishness on the part of her husband's friends and neighbors. That kind of material can't be bought with money."

That is about all for this month. Don't forget your dues, \$2.50 for five years, and above all don't forget to write to Al. — ALVIN GUTTAG, *General Secretary*, 7114 Marion Lane, Bethesda 14, Md. MAR-

SHALL D. MCCUEN, *Assistant Secretary*, Oldsmobile Division, General Motors Corporation, Lansing 21, Mich.

## • 1941 •

Greetings to you all, and glad to be back in The Review columns again. A few clippings and news releases have arrived from the banks of the Charles, but the direct news has been pretty scarce. How about some live items, gang? We spent our vacation on Cape Cod swimming and sunning, and managed to keep busy the rest of the summer cutting grass and chasing Japanese beetles. There must be some stories that can top ours, though, so let's hear them.

Had a welcome note from Leona Norman Zarsky, which arrived just a couple of days late for the last issue: The date of their daughter's birth was February 24, and not in March as I reported. Leona is in the Department of Medical Research at Beth Israel Hospital in Boston. Her husband graduated from Tufts Medical School in 1949, and is training in neuropsychiatry with the Veterans Administration.

Reports are in on two members of the Class who are in Korea: Major Bill Kussmaul and Captain Carlton Stewart. Bill is with the U.S. Military Advisory Group, and works with the school commandant and director of training of the Korean Army Ordnance School, toward organizing their army and familiarizing their troops with American equipment and tactics. Bill has been in the Far East since July, 1951, and has been awarded a commendation by the Chief of Ordnance of the Korean Army for his service. He had re-entered the Army in 1950, and had previously been stationed at Ft. Bragg, N.C. Carl Stewart is now railroading on the Korean National: He is chief mechanical engineer in the equipment section of the Third Transportation Military Railway Service, which operates the Korean National. This road carries 95 per cent of the supplies for UN troops in the combat zone, and the third TMRS is the operations hub for the routing of trains over the system. Carl has been over there since September, 1951. Both he and Bill were at the 10th reunion, which must now seem ages ago to them. I'm sure I can speak for the Class in wishing them the best of luck.

Most of the remainder of the news covers promotions or new positions. Carl Olson has been appointed sales development supervisor for insulating materials at General Electric's chemical division alkylid resin products plant in Schenectady, N.Y. Carl started with GE after graduation, doing development work at the Thomson Laboratory in Lynn. From October, 1942, until May, 1948, he was engineer in the wire and insulation department there, and then moved to the Philadelphia office. In January, 1950, he went to Schenectady as sales development supervisor on Permafil, an insulating material manufactured at the alkylid resin plant; and the following November he went into sales analysis and planning there. Carl and his wife have two sons: Peter, eight, and Gregory, four. They live at 1029 Eugene Drive in Schenectady. Bob Wooley has left International Business Machines in Endicott,

N.Y., and gone to GE in Syracuse. John Lindstrom, who received his master's degree in Architecture in 1941, has been made a partner in the Minneapolis firm of architects and engineers, Magney, Tusler, and Setter. He joined the firm in 1945, having previously worked for architects in Montana, New York, Kansas City, and Alberta. In 1944 he was with the Association of National Defense Research Councils at Princeton, and later was an operations analyst with the Army Air Force in the Pacific.

Herbert E. Hirschland, who took his master's degree in Chemical Engineering in 1941, has been made director of research of the Metal and Thermit Corporation, which firm he joined after graduation. After five years in the research field, he became a sales engineer in the chemical sales division in 1946, and since 1950 had been assistant sales manager of that division. Walter A. Sokolsky has been appointed foundry service engineer for Monsanto Chemical Company's Plastics Division in Springfield, Mass. Prior to joining Monsanto, he was a foundry metallurgist for four years at the Saco-Lowell Shops, and a chemist and metallurgist for two years at the Warren Pipe and Foundry Corporation. He served for five years in the Army Air Force and was discharged a major.

The Alumni office reports the death on October 5, 1951, of Captain Gilbert H. Mitchell of the Office of Naval Research. No other details have been received.

Present at Alumni Day on June 9, were Johan M. Andersen, Theodore V. Ferris, Rogers B. Finch, Lewis T. Jester, Walter J. Kreske, Mitchell J. Marcus, Edward R. Marden, Earl Meyers, and Max Schweins-haut. — IVOR W. COLLINS, JR., *General Secretary*, 28 Sherman Road, Greenwood, Mass. JOHAN M. ANDERSEN, *Assistant Secretary*, Saddle Hill Farm, Hopkinton, Mass.

## • 1942 •

Those of us who were able to attend the 10th reunion last June 7 and 8 had a wonderful time, regretting only that more of the fellows and their wives were not able to join 70 men and 50 wives who attended. The fine facilities of the Hotel Griswold in Groton, Conn., and the superb co-operation of the weatherman made for a fine time. Although a few eager beavers showed up Friday night, activities didn't really get started until Saturday morning when the unofficial, as well as the official, welcoming committee joined forces to give out the red and gray baseball caps and oversize name badges and to take one-minute pictures of, we believe, all arrivals. The formal activities commenced with lunch in the main dining room, and, from there, the still young and active took off for the golf course or the swimming pool. It was no surprise, however, to find most of the Class and our wives energetically engaged in conversation and cocktails.

Late in the afternoon we rushed to get dressed for the class picture and then immediately repaired to the television room for liquid repairs. At the banquet,



elections (!) of class officers were held. The Nominating Committee chairman, Al Clear, announced the slate of Jerry Coe, Charlie Spears, and Lou Rosenblum for president, vice-president, and secretary-treasurer, respectively, for a term of five years. The vote was unanimous. This was followed by dancing in the Cinderella Room. Since the announcement of prizes to be awarded on Sunday included the special gift to the most eligible bachelor, several of those present attempted, each in his own way, to prove his eligibility.

Midnight was welcomed by the sound of splashing in the outdoor pool as a few hardy souls laid claim for the first in swimming on Sunday (Betsy and Ken Leghorn). The early risers Sunday morning were greeted by more sounds from the pool, as still earlier arisers (Shirley and Norm Pinto) put in their claim for the water spaniel prize. Despite the early hour, almost everyone present arose in time, not only to make the Submarine Base tour, but to have breakfast before going there. We were given a most cordial reception and a very interesting tour of the facilities of the U.S. Navy Submarine Base at New London, Conn. The high lights were a guided tour through the submarine *Guardfish* which was launched just one week after we were graduated from Technology, and also a visit to the 100-foot diving tower.

The final event of our pleasant, informal party was the awarding of the many prizes so generously donated by members of the Class. Monroe Brown presented a finely made plastic model of a Piasecki Helicopter; Al Clear arranged for a Malory XV hat; Jerry Coe sent lots of General Electric Silicone lens tissues and some jars of bouncing putty; Bill Hahn (who unfortunately was unable to join us) donated a pair of ladies' slippers and a pair of playshoes; Milt Platt arranged for bottles of Richard Hudnut perfume, Johnson and Johnson first aid kits, and Rayve home permanent kits. Bill Schoen brought up some handsome Grumman F9F-6 "Cougars" (models). Ben Skinner (also prevented by business from being with us) sent up many cans of frozen orangeade. Transportation delays prevented us from getting it on time, so the committee donated it to the local Salvation Army. Chuck Smith supplied some special toggle pliers. Jim Stern presented some gold compacts and watch bands. And Polaroid furnished sunglasses for all those present.

Notables among the prize winners were: John C. Collins who came all the way from Ashland, Ore.; Cis and Lin Adams who are the proud parents of Linwood Paul, Jr., Sheila Marie, Virginia Ann, John Corrigan, and Eileen Mary (the whole family attended the Alumni Luncheon in the Great Court on Monday); and Jack Lacy won the hat.

There was lots of technical news reported during the past several months. Of most widespread interest is the announcement of the completely automatic feed-back controlled milling machine which was developed at M.I.T. under the guidance of William Pease, Associate Professor of Electrical Engineering. This outstanding new development was described in an article in the September *Scientific*

*American* and also reviewed in the August 25th *Time* magazine. In summing up his own views on the import of this work, Bill says: "With (such) machines in control, we can conceive of factories which will process, assemble and finish any article of manufacture. It is unlikely that the automatic factory will appear suddenly. Like the machine tool itself, it will just grow by steps, until eventually it is here."

Other outstanding events in the business lives of our classmates are the awarding of a doctorate in education to John A. Finger, Jr.; the awarding of a three-month Chandler Fellowship by the University of Pennsylvania to study architecture abroad to Robert N. Chappelle; and the presentation of the Alumni Award for distinguished service by the University of Denver to Edward M. Redding, who is also director of research of the Charles F. Kettering Foundation.

In the line of family activities, we are very happy to announce the arrival of Jerome Muir Coe on June 12 (which explains why Jerry was wifeless at the reunion) and the arrival of Janet Ellen to the family of Mickey and Bob Kraus on June 25.

We note the weddings of Julia DeAmicis of Fall River to Glenn Earl Whitham, President of Teleservis, Inc., of Quincy and Dorchester, Mass.; of Ann Theresa Earley of Pittsburgh to Casimir Theodore Wittl of New York. The engagement was announced of Nancy Page of Darien, Conn., to C. Albert Lau of Trinidad, British West Indies.

News from the military front is highlighted by a photograph of Captain John S. Arend and an article that appeared in the Boston *Globe* about his activities in Korea. Jack is a radar observer with a superfortress wing. Our congratulations to him on the award of an additional cluster to his Air Medal. Off on another continent is Major Ken Rosett who is attached to the U.S.A.F.E. in Wiesbaden, Germany, and is working with the Mutual Security Program. Some time ago he made arrangements for Jean and the children, Nancy and John, to join him in Europe. They spend their week ends and leaves seeing the beautiful countryside. In order to handle their voluminous correspondence, Jean and Ken have taken to publishing an "Overseas Letter." We quote from their letter of August 20: "Took a week's leave the beginning of July and drove through the Low Countries: Netherlands, Belgium, and Luxembourg. The trip was fine; the weather perfect, food and accommodations excellent, and a fine time was had by all. Drove up the Autobahn to Cologne and stopped to see the big cathedral there. Climbed up 502 steps to the top of the bell tower and of course the same number down. Hauling my Graphic and a gadget bag full of photo gadgets, this was quite a bit of exercise. Stayed in Hilversum which is near Amsterdam and covered Haarlem, Leiden, Hague, Gouda, Utrecht, Edam, Volendam, Zaandam, and Rotterdam from there. Spent one evening at Larens, which is the Dutch artists center, a rustic export version of Greenwich Village. Larens is different from the Village in that the air is cleaner and the artists are too well fed

and too sleek looking to rate by the lean and hungry United States standards. Took a boat trip to the Isle of Market in the Zuider Zee. The population there is about 1,500 people, but there are only 40 families, one of the most amazing examples of inbreeding in western Europe. The people still wear traditional Dutch costumes, complete with wooden shoes, lace caps, full skirts, and big aprons."

Closer to home is Captain Alan Katzenstein who writes from Baltimore: "A line or two to explain my status. I was recalled last May 1 to active duty and was assigned to headquarters, Air Research and Development Command. I'm food service staff officer here—concerned with the feeding programs at our ARDC bases. We have a couple of other M.I.T. men here at headquarters including Bob Boyer '42, whom I seem to keep running into (in Italy during the last war). In our immediate office is Hal Stetson, also '42. Bob Boyer, Bob Nickerson '51, and I have had luncheon a couple of times at the M.I.T. table at the Engineers' Club here, only a block from headquarters. They seem to have only the weekly table, attended primarily by men who went to Tech on Boylston Street."

The clipping service tells us that Technology men are in the news with promotions. Among those so honored are Jack Kline, who is now assistant professor of electrical engineering at the University of Rhode Island; Fred H. Olsen who is in charge of packaging development at the Olin Cellophane Division of Olin Industries, Inc.; and David Washburn Carnell who is now a supervisor in the nylon research section of E. I. du Pont de Nemours and Company. We gather from a Whiting Research Laboratories notice, that Warren W. Twaddle has left the Armed Services and has settled in Whiting, Ind.

The Alumni Register advises that Carter L. Bennett has been promoted to captain and is now at Garrett Park, Maryland; Scott K. Gibson has also been promoted to captain and is now at West Annapolis, Md.; Major Frederick M. King is now at the Maxwell Air Force Base in Alabama; Curtis D. Buford has moved to Erie, Pa.; David J. Cavanaugh to Albany, N.Y.; Dr. Howard T. and Mrs. Eloise (Humez) Evans, Jr., to Wheaton, Md.; Truls W. Graff, Jr., to Fredrikstad, Norway; Albert E. Hayes, Jr., to East Rockaway, N.Y.; Francis B. Herlihy to Hillsdale, N.J.; Warren H. Kaye to Hamden, Conn.; William F. Keyes, Jr., to Arlington, Va.; James A. Knowlton, Jr., to Schenectady, N.Y.; Harry E. Knox, Jr., to Elkin Park, Pa.; Carl L. McGinnis to Washington, D.C.; John R. McClain to Flushing, N.Y.; William H. Miller to Toledo, Ohio; Dr. Joseph W. Mills to Pullman, Wash.; Fredrich H. Olsen to Guilford, Conn.; John W. Sheetz, 3d to Belmont, Mass.; Commander Bernard A. Smith to San Francisco, Calif.; Oliver P. Swope, Jr., to Royal Oak, Mich.; and Albert P. Vander Kloot to Skokie, Ill. Exact street addresses are available from your Secretary or the Alumni Office.

We are looking forward to hearing from all of you in the course of the next several months and will endeavor to print every

bit of news that you send along. — LOUIS ROSENBLUM, *Secretary*, Polaroid Corporation, 730 Main Street, Cambridge 39, Mass. KARL E. WENK, JR., *Assistant Secretary*, 11 Ledge Road, Old Greenwich, Conn.

## • 1945 •

It has been five long, hot months since your Secretary has sat down to write up any class notes. In that time it would seem that some headline news would have been made by some, if not all, of your fellow classmates. Maybe you all have made the headlines, but if one were to judge from the letters your Secretary has received from his classmates, very little history has been made by the Class of 1945. Fortunately, we should be able to fill a couple of columns with information from the Technology News Service and other sources in your Secretary's hands. So here we go!

No need to elaborate on Alumni Day, 1952, in too great detail, but I do feel you would like to know that the usual "old reliables" were on hand. Our class registration was as follows: Jay W. Forrester, Charles H. Hart, Thomas A. Hewson, Donald K. Kuehl, Robert N. Maglathlin, William J. Meade, William H. Martin, Warren H. Miller, John Mitchell, 2-46, Charles A. Patterson, Jack L. Uretsky, Donald M. Whitehead, Richard C. Winkler, Clinton H. Springer, and Morton S. Silberstein. Only 15 — a small group indeed; but if one were to check our previous registration lists, most of the lists would read about the same. Unfortunately, your Secretary had to put in his usual hard day at the Portsmouth Naval Shipyard up in Kittery, Maine, so he didn't arrive until banquet time. As usual, the boys were in a talkative mood at dinner, as indicated by some of the following news.

Bill Meade, who, as you have probably already guessed, is still at Stone and Webster, told us that the Tom McNamaras had a daughter, Susan Louise, on May 26. Warren Miller is still working for his father out in Buffalo. I asked Warren if he had heard from Julian Gammon, the old Jacksonville Jumper, but Warren had no hot words. Bob Maglathlin is with the Laboratory for Electronics in Boston, while Robert Turner bangs away at electronics with Sperry down on Long Island. Reports have Howard P. Grant, the old *Voo Doo* story writer, working on jet propulsion at Harvard. Al Mencher has received his Ph.D. out at the University of California and is now working for Hughes Aircraft. Dick Winkler who is superintendent at one of Container Corporation of America's greater Boston plants, has just bought a new home in Reading, Mass.

Chuck Patterson really deserves a whole paragraph by himself if one were to repeat or believe all that appeared in the Quincy, Mass., *Patriot-Ledger* on June 16. Nothing unusual has happened to Pat — it seems as though Uncle Sam thought so highly of him that he was recalled to active duty as a lieutenant (j.g.) and was stationed with Rog Hood down at Bethlehem's Fore River Shipyard. Prior to his

most recent entry into service, Pat was in charge of the St. Louis office of the Spencer Thermostat Company where he was quite active as a member of the Electrical Board of Trade as well as the International Association of Electrical Inspectors. While on the subject of Fore River, you might be interested to know that Tom Doggett, who worked at Fore River as a civilian naval architect, is now at the Navy's Advanced Repair Depot in Japan.

It is a pleasure to report on three weddings. Briefly, I can confirm the marriage of Hap Poole and Nancy Hall, previously mentioned in last June's edition of *The Technology Review*. Hap and Nancy were married on April 26 at the First Presbyterian Church in Ridgewood, N.J. Abbot Fletcher '47, of pole vaulting fame while at the Institute, was one of the ushers. The Pooles honeymooned in Bermuda and now live in Oakland, N.J. On June 7, Evelyn G. Harris became the bride of Lawrence B. Van Ingen at Cold Spring Harbor on Long Island. Judging from the write-up in the *Boston Herald*, it must have been quite an affair. It was most interesting to read the names of the attendants and ushers and to discover that Dick Cannaday, a fraternity brother of Larry's down at the Number Six Club, ably assisted in the ceremony. I have no definite word as to the whereabouts of Larry and Evelyn, but I would imagine they are living out on the Island within commuting distance of New York. On June 15, Francesca Judkins of Haverhill, Mass., became the bride of Clinton H. Springer in a double-ring ceremony at the First Congregational Church in Haverhill. Naturally, in his mind, it was the greatest wedding your Secretary ever attended or hopes to attend! After a wedding trip to Bermuda, Frannie and I spent a few days down at Prudence Island, R.I., before returning here to New Castle, N.H., where we anxiously await my release from the Navy and our return to private enterprise.

It is a pleasure to again report that Prexy Chick Street had another successful racing season in his *Star Colleen*. Chick was Narragansett Bay's representative in the North Atlantic Coast Star Championship in which he unfortunately finished in the middle of the pack. Over Labor Day week end, Chick took the Gidley Trophy for the third year in a row. Harrison C. Colket, President of North American Smelting Company, recently announced the appointment of John V. McCarthy as sales representative in New England. Until recently, John, who is very active in the American Foundrymen's Society, has been the Connecticut representative of American Smelting and Refining Company. A recent feature story in the *Christian Science Monitor* told of Professor William E. Hardy's prominent part in a weather study program the Air Force has at Oklahoma A.&M. Bill, a crack meteorologist, received his master's with our Class at Technology. Captain Philip B. Brady, U.S. Army, who was with us at Technology only a year before going to West Point, recently received his master's in electrical engineering at the University of Pennsylvania.

Received a very nice letter from Jeff Buik in which she reports that she and Chuck, both Class of '45, had a new daughter, Lee, in May. Lee has an older brother, Keith, and an older sister, Robin. Chuck, a lieutenant (j.g.) in the Civil Engineer Corps, is stationed at the Naval Gun Factory in Washington, D.C. Your Secretary imagines that Jeff, a Course V major, does an excellent job in mixing formulas. Another recent arrival to this troubled world of ours is James Frank Strnad, 2d, on August 23. Congratulations to Mr. and Mrs. J. J.!

In the middle of May, I received a very nice letter from Ed Stoltz in which he gave me the low-down on West Virginia and its surroundings. After their marriage in February, Ed and Margaret took a three-week, 4,300-mile motor tour throughout the southeastern part of the country. Why, they even caught part of the Mardi gras! Ed says business is great down in the Ohio River Valley and suggests that all struggling classmates head in that direction to the land of plenty. Ed and Al Oxenham crossed stools in one of Pittsburgh's better beer parlors just before Ed's marriage. I don't know if Ed is allowed to frequent such places now, however! The rumor mill has it that the Stoltzes are expecting in December.

Just before I was married in June, I received a most pleasant letter from Jerry Patterson, written aboard the U.S.S. *Hector* (AR-7) somewhere on the Pacific high seas. Lib and the boys were with Pat while the *Hector* was in San Diego in the early spring. By now Pat should be back in the States, for his ship is in Mare Island for an overhaul. Pat should be out by the first of the year, and then it will be back to Binghamton, N.Y., for him. He wrote in true Reserve style, griping about everything and anything, but with his collateral duty as assistant shore patrol officer, by now he should know every gin mill from San Diego to Korea inside out. In early May, Nick Mumford wrote of life in dear old Texas. It is most heart-warming to see that Nick is still a good old New Englander at heart. From the way Nick writes, he seems to be happily riding along the road of success with United Aircraft. Lieutenant Francis Carroll has left Trinidad and is now stationed at the Naval Air Station, Quonset Point, R. I. Lieutenant (j.g.) Sam Moore, who left us in our second year in order to go to the Coast Guard Academy at New London, is now an inspector of material in New York City. While talking with Jack Uretsky at the Alumni Banquet, I was surprised to learn that Jack remained on active duty with the Navy until 1950. Jack was married somewhere along the way and is now back at the Institute studying Physics again.

That's all the news for now, kiddies. Since it is doubtful that we will be around next issue, your class officers not only wish you a most pleasant Thanksgiving, but also a Merry Christmas and a happy and prosperous New Year. — CLINTON H. SPRINGER, *Secretary*, 44 Church Street, Bristol, R.I. *Assistant Secretaries*: WILLIAM J. MCKAY, 15 Barrett Street, Needham, Mass. EDWARD STOLTZ, JR., Hubbard Lane, Wheeling, W.Va.



The fuss and excitement, the upset and hooraw are all over now; the "reunion" (such as it was) has come and gone, and we can all relax for another five years. You'll forgive me for the note of bitterness that creeps in; but I can't help feeling that after the year of hard work the Committee expended in organizing our great get-together, our loyal and true Class of 1947 could have mustered a few more from the potential of 1,500 on our rolls than the 11 (count them - 11) stalwarts who showed up for the reunion week end last June. No need to gnash teeth and weep bitter tears, of course - at least those of us who were there had a rip-roaring time, and maybe we can make the rest of you jealous by relating what transpired at the Cliff Hotel in North Scituate Beach, June 6, 7, and 8.

From all indications, first to arrive on the scene was Walt Kisluk who had fought his way up by bush cart, dogsled, and wagon train from Washington. At any rate Walt was two beers ahead of everyone else at the bar when we got there. I drove down from Boston with Harl Aldrich, and Lee Hanower came in from Springfield a short while later. Aaron Newman tore himself away from his wife and new baby daughter in Groton, Conn., to join us in revelry; and when Mike Rosar and Parker Symmes walked in, the party was already in full swing. We spent most of Friday evening anxiously eyeing the door for more '47 men, but as things progressed we found it a trying enough chore to even remember our own names.

Saturday morning found Phil Jones, Dick Knight, Jim Phillips, and Bob Thirfield cheerfully breakfasting with us - they had silently arrived during the night to swell our number to what was ultimately the sum total of week-enders. Telegrams from Jack Lehman and Art Schwartz conveyed their regrets at not being able to make the shindig, so we carried on nobly without them. Dick Knight had arranged a fishing trip for Saturday morning in which the more foolhardy of our number participated, while the athletes amongst us set out for the tennis courts. The same wind which carried our tennis balls over the fence, made it pretty rough going for the fishermen, and it appears that the fish came off better than the anglers.

Art Galusha arrived later in the afternoon for our cocktail party, and joined us for the banquet that evening - a fine Armenian menu. After-dinner entertainment was provided by the 12 comedians at the table, whereupon we inevitably retired to the cocktail lounge. Curfew being at midnight in Massachusetts, we tried to liven things up by organizing a good old-fashioned panty raid in the hotel, but the best we could do was a pair of Kisluk's dirty tennis shorts. Sunday saw two more late arrivals - Bob Horowitz and Bob Devine - who joined us for the final repast, a wonderful New England clam and lobster dinner served on the hotel terrace. And so our fifth reunion drew to its close, and as the sun sank slowly in the west, we pledged to meet again five years hence, and the hell with the rest of you

bums who didn't show up!

The Alumni Banquet at the Hotel Statler on Monday evening found many more of our classmates on hand. Besides those mentioned above were Bob Aquadro, Winifred Bennett, Ed Bowman, Fred Heuchling, Ed Kane, Mort Loewenthal, Bill Rangnow, Jack Rizika, Gerhard Reethof, Phil Solomon, Adelaide Toombs, and Dick Turner. Phil Solomon dropped by the Aero Department during the morning, and it appears that he is leading the life of adventure as a flight engineer with T.W.A. on their cross-country flights.

The summer passed uneventfully enough. A few of our classmates found their way back to the Institute for the various special courses which were presented throughout the summer. Marty Schwartz, now with the Strategic Air Command in Omaha, and Hugh Flomenhoff, who is with the Bureau of Aeronautics in Washington, were here for several days on one of the courses. Received a couple of notes during the hot days from Pete Portmann and Joe Devaney regretting their inability to make the reunion. Joe, writing from Los Alamos, wants it on record that he is "still single, still in physics, and still glad I'm a civilian still."

Jim Van Meter showed up late in the summer, having left his job with United Aircraft to take a position with the Division of Industrial Cooperation here at Technology. Speaking of job changes, we have word that Jim Preston has left General Electric in Schenectady for Monsanto in Anniston, Ala. Don Anderson has also joined Monsanto, but at the Merrimac Division in Everett. Vince McKusick, who clerked for Judge Learned Hand in New York City and Justice Felix Frankfurter of the U.S. Supreme Court, has joined a law firm in Portland, Maine. Vince, an alumnus of Bates College, as well as the Institute and Harvard Law School, was recently named to the board of trustees of Bates. Dan Compton, Vice-president of the Cambridge Art Association, has been elected a member of the board of trustees of the Judge Baker Guidance Center of Boston.

We seem to be over the peak of engagement and wedding announcements. Only a few to report at the moment. Betrothed are John Cornell and Patricia Rainsford of Rosemont, Pa.; Joe Weed and Sara Charlotte Squires of Westtown, Pa.; Bob Baldwin and Nancy Higbee of Margate, N.J.; and Ron Best and Barbara Frances Borton of Newark, N.J. Only three weddings to report: those of Ken Wetmore and Elaine Brenton of Lexington; Dave Hill and Alice Dean Hanly of Wilmington, Del.; and John Reardon and Ruth Marie McManus of Marblehead. As if Vince McKusick hasn't been mentioned enough in this column, we must here record the birth of his daughter, Barbara Jane, who arrived on August 25. An even more recent father is Gabe Isakson, whose son, Gordon, was born on September 16. - CLAUDE W. BRENNER, *General Secretary*, Room 33-316, M.I.T., Cambridge 39, Mass.

• 1948 •

With the passing of summer, much has transpired in the lives of many of us.

Some of us got engaged: John Kaymen, in April, to Eunice Pennock; Robert Teitel, now an associate metallurgist at the Brookhaven National Laboratory, in June, to Faith Finkelstein; Bob Crooks, in the Patent Services Department of the General Electric Company and a student at the law school of George Washington University, to Mary Jackson; Isadore Candeb to Ruth Schoenbrun; Herb Kenter to Rose Haveson; Bob Norman to Elaine Hamilton; and John Lake, a candidate for his master's degree at the New York University School of Commerce, to Marguerite Andariese, also a graduate student at N.Y.U.

Others married: Ray Ellis, a research chemist with Raytheon, to Gretchen Mathias; Francis Brady, on active duty with the Air Force at Wright-Patterson Field in Dayton, to Margaret Lane; Graham Sterling to Judith Anderson; Dick Jones, who, since graduating from Tech, has received both M.A. and Ph.D. degrees from Harvard where he is now employed as a research fellow in chemistry, to Helen Hinrichsen; a coed, Lucille Scott, now an M.D., to Dr. Eugene Whittier; Herbert Shuster, now completing his studies for his Ph.D. at M.I.T., to Roseanne Feldman; Wade Miller to Margaret MacInnes; Ralph Fred Cameron to Ruth Ferris; Carl Boll, Vice-president and general manager of Solvents Recovery Service, Westfield, N.J., to Shirley Simmons; and Don MacNair to Marjorie Patterson. Also forthcoming was the announcement of the birth of a baby girl to Mr. and Mrs. Bill Brauer way back on January 31. Bill, incidentally, is currently employed in the Minneapolis office of the Monsanto Chemical Company.

Then there were the changes in vocational or educational status: Boni Martinez has been named chief of the U.S. Bureau of Mines Stream Pollution Research Section for the northeastern region at College Park, Md. Boni, a former resident of Baltimore, was process engineer for a steel firm at Sparrows Point, Md., before accepting his new assignment. From the Eighth Army Headquarters in Korea, we learned that First Lieutenant Ed Scott, who arrived in Korea in April, was appointed officer-in-charge of the 314th Ordnance Group Ammunition School in June. The same month, John Kearney was awarded his ensign's commission after completing a 16 weeks' schooling in Newport, R.I.; and a month later, Bill Schmidt, who had been manager of the Coca-Cola Bottling Company in Elizabethtown, Ky., for the past two years, received his commission as a second lieutenant and a pilot in the Air Force. Clifford Ham received two degrees within a week during June: a bachelor's of divinity from Andover-Newton Theological Seminary and a master's in sacred theology from Boston University. A Ph.D. in physics was received by Francis Jablonski from Notre Dame University, where he has been employed as a teacher since graduation from Tech. Joe Salerno was promoted to assistant professor of electrical engineering at Clarkson College; and Holt Ashley, Assistant Professor of Aeronautical Engineering, and Ken Wadleigh '43, Assistant Pro-

fessor of Mechanical Engineering, both at M.I.T., were honored with the award, by the Institute, of the Goodwin Medal for "conspicuously effective teaching."

Earl Hoyt, who had formerly been employed by the Link-Belt Company as a plant engineer, joined the Dallas technical staff of the Lamson Corporation as a field engineer. More news next month, if you sit down and tell us all about this long and interesting summer that has just passed. — WILLIAM R. ZIMMERMAN, *General Secretary*, 1604 Belmar Road, Cleveland Heights 18, Ohio. RICHARD H. HARRIS, *Assistant Secretary*, Lovell Road, Holden, Mass.

## • 1949 •

It is with sincere regret that I have to report the death of two of our classmates, Captain John Frost and Lester Bressack. John Frost, stricken with polio, died July 2 while stationed at the Enid Air Base, Enid, Okla. His wife, Pauline, and two children, James Peter and Christine, will make their home in Newton Upper Falls, Mass. Lester Bressack died in Boston after a short illness on July 27. He had been employed as an industrial specialist in the Springfield Ordnance District and is survived by his wife, Helen, and son, Michael.

The latest word from our President, Tom Toohy, announces the addition of a baby girl, Mary Belinda, who arrived August 12. Also, from up Boston way, we hear Paul and Virginia Weamer welcomed the arrival of seven pounds, 10 ounces, Linda Ruth last May 19. A letter from Mase Campbell relayed the news of a second daughter, Nancy Lee, born June 23 and doing fine. Mase added he is working for G.E. and was recently transferred to their Lockland Plant, Cincinnati. I have to make it a foursome, lads. Camis Ann, our first, arrived June 9. All girls — no prospective fodder for the hells of Tech.

Chuck Miller dashed off a note to us from Muroc, Calif. Chuck is at the Edwards Air Base, and he writes: "Presently employed by the United Aircraft Service Corporation (Chance-Vought Aircraft Division) as a test pilot on the 'Regulus' project. I have been out here on the Mojave Desert since October '49, having started as a flight-test engineer on the Douglas D558-II *Skyrocket* prior to transferring to CVA one year later. Since leaving M.I.T., I've been married, have one baby girl, and expect a boy late in July. The wife's name is Ilene, a local southern California girl." In a postscript, Chuck added: "I've only added three inches to the waistline since '49; wonder how many other classmates can make that statement?" Wish you luck on the boy prediction, Chuck.

Bob King writes he is, as of May 5, a sales engineer in the Cleveland office of the Hevi Duty Electric Company, a Milwaukee firm, and still single. Dave Yeomans is an industrial engineer at the Dayton plant of Harris-Seybold Company. As of a month ago, Ronnie Greene was with his Dad operating a new Lincoln-Mercury agency in Aurora, Ill. Ron was then single with no intentions. Wes Marrotte is employed as a metallurgist

with Cleveland Twist Drill." Thanks a million for the note and mention of the lads you are in touch with, Bob.

Also a vote of thanks to Kee Taschioglou who, amid the hustle of Alumni Day, found time to jot down the following notes about the 15 classmates in attendance. Ernest Barriere is with G.E. in the General Engineering Laboratory, working as a project engineer in radar systems. He is living in Scotia, N.Y., with his wife and four children. Bill Haddon is in his fourth year at the Harvard Medical School. Bud Jones is the administrative officer at the Center for International Studies, a D.I.C. project at Technology. Warren Houghton became engaged at Christmas to Patricia Mulally of Danvers, Mass., and is presently employed in the Advance Design Section of the Aircraft Gas Turbine Division of G.E. Tom Martin is an aeronautical engineer with the Naval Supersonic Laboratory at M.I.T. Russell Hawes, who is living in Cambridge, is a senior design engineer with the Transducer Corporation of Boston. John Chalas has changed his name from Chalapatras and is now a consulting engineer with Drummery Duffill, Inc., Boston. William MacLeod is with his Dad, W. A. MacLeod Company, builders and contractors. Jerome Krinsky is the purchasing agent and general manager at Embosograf Company, Chicago, who are manufacturers of point-of-sale advertising displays. Leonard Bezark is at the Aberdeen Proving Ground with the Army and expects to be discharged this November. Edward Walz, Cambridge, is a technical representative in the plasticizer division of Godfrey L. Cabot, Boston, manufacturers of carbon black. Also at Tech during Alumni Day were William Lewis, Philip Lynn, and Herbert Neitlich.

The Holzwarths have moved, so note the new address men and drop me a line. I'll print anything. — CHARLES WILLETT HOLZWARTH, *Secretary*, 1426 Grace Avenue, San Jose 25, Calif.

## • 1950 •

In response to a plea from our faithful Secretary, Jack Weaver, for some valiant soul to write this column and generally to take charge of his office while he is stationed in Germany, I now find myself faced with the task of writing this column each month. There has been an absolute dearth of correspondence and therefore this issue lacks the sparkle that only you can supply by writing me of your doings and those of your friends in the Class of '50.

Since the last issue, wedding bells have rung for a large number of the boys and gals: Ensign Charles Chittick, Jr., to Marion Sedgwick in Waterbury, Conn.; Lieutenant Jack Weaver to Ruth Mallowney in Duxbury, Mass.; Henry Johnson to Dorothy Drury in Waltham, Mass.; John McKenna, Jr., to Dorothy Mahoney in Somerville, Mass.; Henry Sauer to Joan Crawford in Oyster Bay, Long Island; Paul Zorn, Jr., to Sarah Brown in Chicago, Ill.; Dave Baird (now working at Cal Tech) to Mary Lou Molder in Worcester, Mass.; George Fedde (still with Philco) to Dorothy Hooper in Winthrop, Mass.; Lieutenant Norman Champ (stationed here at

Wright-Patterson Air Force Base) to Anne Van Anden in Crestwood, N.Y.; Lieutenant Bob Snedeker to Pat Honeker in East Orange, N.J. (Lieutenant Ed Perkins, now stationed in Chicago, was best man for Bob); Ensign Dick Sabin to Barbara Blakey in Albuquerque, N.M.; Lieutenant Willard McCullough to Noel Illian in Garden City, Long Island; Jim Staikos ushered for Lieutenant Mel Gardner's wedding to Ellen Erlich in Boston (Mel's stationed in Washington for the information of those passing through Washington); Chester Claff, Jr. (who is working on his doctorate at the Institute), to Eleanor Davis in Hingham, Mass.; Jim Miller to Jean White in Buffalo, N.Y.; Per C. Smith, who went on for his master's at Columbia, to Anne Murphy, in Rye, N.Y.; Eugene Ganssle to Clairanne Powers, in Arlington, Mass.; Ensign Jim Hooper, whose recall to active duty came only a short time after graduation from Harvard Business School, to Marilyn Smith in Wellesley, Mass.; Tom Mea (working at Stone and Webster) to Audrey Nix, in Ashland, Mass.; Roger Manasse to Jane Mason (Henderson Cole and Wlodzimierz Tereshkevitch ushered for Roger and Jane); John Craig (now studying at the Institute for his doctorate) to Jean Wormuth in Belmont, Mass.

In the column of those planning to set the big date together in the near future are: Emmett Bradley and Ann Gray; Mike Wall and Bettina Frazier; John Sykes, Jr., and Frances Millard; Jack Bent and Verna O'Brien; Bill Lawrence, Jr., to Marjorie Rappold; Ray Kretschmer and Claire Meyer; Morris Cohn and Faïre Levy; Art Burrill and Irma Hodgedon; and Ed Dmytryk to Excella Chevallier. It's a sure bet that by the time this issue reaches you, many of the above will have made the trip down the aisle. But this is the latest information that I have.

According to a certain well-known magazine, "names make news," and names of the Class of 1950 have been outstanding in this respect: Leonard Sayles, who is working on a study of human relations at Cornell; Gabe Stilian, as the national college adviser for "Youth for Eisenhower" under Senator Lodge; Steve Temmer as vice-president of Gotham Recording of New York City; Dick Fay for passing the Society of Actuaries' exams, while working for Connecticut Mutual; Bob Carruthers, for his promotion to assistant sales manager, welding products, at American Brake Shoe Company; Serge Wisotsky for completing his studies at Brown University for his M.S.; Walter Fales for receipt of his master's degree in automotive engineering from the Chrysler Institute; Mark Baxter, Jim Hooper, Jack Jacoby, Ed Perkins, Jim Jensen, Norm Champ, Beryl Borsook, Jack Pines, Roger Saleeby, Jr., and myself, Myles Spector, for leaving the ivied buildings of Harvard Business School via graduation last June.

Miscellaneous Department: Received a card from Claude Pasquier, back to his native France for a visit while on leave from Goodyear Aircraft. Claude has recently been promoted to project engineer and reportedly is very happy with his new assignment. Another message from over-



seas was received from Ken Kruger '51, the lucky recipient of an M.I.T. summer fellowship to work in Sweden these past few months. Ken apparently had plenty of time to roam the countryside and to compare Scandinavian architecture with his book learning from Technology and the Harvard School of Design. A note was received that Bill Flye was commissioned in the Army Corps of Engineers and is stationed at Fort Belvoir, Va. And it seems that Arnie Doyle got his silver bars recently!

This just about winds up the recent news of the men and gals of '50. Am looking forward to receiving letters and cards from you with the latest scoop on the doings and accomplishments of '50. Don't be bashful! — MYLES S. SPECTOR, *Acting Secretary*, 3114 Sunny Crest Lane, Dayton 9, Ohio.

## • 1951 •

Hi Gang: I hope that all of you had a very pleasant summer. As for your Secretary, he is back at the "B" School (as these notes are written) and already submerged in case studies. Now let's see what the mailbag holds as to news about the guys and gals of '51. Unlike last year when the first issue of *The Review* had much news about work assignments picked by the '51ers, this issue will be composed for the most part of engagements and marriages. Yes, the ranks of the single, unattached young men are getting smaller day by day.

Let's start off by checking the engagements. The following have announced their intentions: Bill Diffin and Catherine Connors of Cambridge; Tom Kelly and Margaret McCormick of Grosse Pointe Park, Mich. (Tom is now an ensign aboard the U.S.S. *Cotten*); George Fernald and Eleanor Taft of Belmont; Al Kubick and Diana Warren of Lexington; Mark Nelkin and Dorothy Wolfers of Brookline; and Bill Santelmann and Jean Hunter of Belmont. Some of these engagements are probably now marriages, since a long interlude of time exists between the receipt of the news and appearance in *The Review*. Now for the marriages!

Among those who walked the bridal path are the following: Paul Malherbe wed Catherine Vertrees of Sandy Spring, Md.; Fred Aldrich and Janice MacMahon of Houston said "I do" (Fred's stationed at Wright-Patterson Air Force Base); Oscar Ancira and Phyllis Bleet of Malden were married in Monterrey, Mexico; and Ardashus Aykanian took Angel Shirvanyan as his bride at Indian Orchard, Mass., in June. Also married were: Dick Bachtell and Mary Jane Smirt at Cleveland in July; G. Kendall Benson and Virginia Blanchard of Woodstock, Vt., in May (Ken is working at the Goodyear Tire and Rubber Co., in Akron, Ohio); Rene Brodeur and Ann Comer at Lynn in June (Rene is working in Pennsylvania with the Baldwin-Lima Hamilton Corporation); Dimitri Buerger and Elinora Pinney at Scarsdale, N.Y., in July (Dimitri is associated with the Wright Aeronautical Division of Curtiss-Wright); and Jim Coakley and Cynthia Knight at Trenton in June.

Also, George Collins and Kathleen

Sexton at Wappingers Falls, N.Y., in August; Hank Curtis and Grace Thiele at Wellesley in June (Hank went into the OCS of the Navy at Newport, R.I., the same month); Elliott Cutting and Ann Hunneman at Woburn in July; Burt Dempster and Ellen Hilles at Glen Mills, Pa.; Bob Evans and Marion Kelleher at Canton in August; and Bill Fincke and Angie Fichera at Lawrence in July. Also: Paul Grady and Ruth Connors at Waltham in July; Ken Harms and Elaine Andrews at New Bedford in June (Ken is at Wright-Patterson AFB); Ernie Holzmann and Martha Meadows at Quincy in June; Rodney Huppi and Virginia Van Der Voort at Westbrook, Maine, in June (Rod is stationed at the USAF Research Center at Cambridge); Harry M. Johnson and Theo Fogg at Everett in July.

Further marriages: Harry Lowell and Joan Barr at Amesbury in July; Bob Lucy and Priscilla Grant at Lynn in August (Bob is employed as a research physicist with the Photoswitch Electronic Corporation of Cambridge); Axel Nygren and Sally Flett at Stockholm, Sweden, in May; and Bob Madrulli and Gertrude Galvin at Cambridge in June. Also: George McLaughlin and Rosemary Cunniff at Newton in June; Mel Rubin and Barbara Roller in August (Mel is working with the engineering firm of Congdon, Guernsey and Towle of Boston); Jim Spratley and Lois Sessions at Virginia Beach in July; and Jim Salveson and Patricia McCoubrey in Boston in April (Jim is employed as a geologist with the Standard Oil Company in California); Maurice Hedaya and Gladys Dabah at New York City in June; Lou Schaeffer and Elinor Frey at Ridgewood, N.J., in May; and Bill Shenkle and Betty Stewart in April. Congratulations and best wishes to all of you!

News has arrived about new junior members of the '51 group. Allan Gwynne informs us that he is now the proud father of a baby girl who arrived in May. And Bruce Giles sends a note to let us know he and Theresa Stowell of Auburn, N.Y., were married in June of 1951. This past April they became the proud parents of a baby boy. Bruce is doing engineering research at Mathieson Chemical Corporation in Niagara Falls, N.Y. Congratulations to you, too.

In May of this year Roger Turner, Course X, was wounded in Korea while serving with a mortar battalion in the Army's Chemical Corp. He had trained at Fort McLellan, Alabama, and was shipped overseas in February. No information has been received as yet as to the extent of the injury. Other service news: Nick Browne was selected as the honor graduate of his class at the commencement ceremonies of the Ordnance School's OCS at Aberdeen, Md. And Martin Murphy entered the Marine Corp OCS after spending a year in French Morocco with the Porter-Urquhart Consulting Engineers of Newark, N.J. Dick Reuther, who received his master's degree in Chemical Engineering, was assigned to the plants division, Chemical and Radiological Laboratories, of the Army.

Two gals of '51 made the news recently when their biographical sketches

were printed in the "Women with Slide Rules" series featured by the Boston *Globe*. Eleanor Semple received her B.S. degree in Mechanical Engineering with us in '51, while Janice Rittenburg (now Mrs. Janice Rossbach) received her M.S. in Mathematics at the same time. Eleanor has worked with G.E. at their aircraft gas turbine division in the Boston area until July, when she was transferred to the Lockland, Ohio, division. Janice has worked on "Project Whirlwind" as a research engineer at M.I.T.

Here are a few more news items to illustrate the versatility of Tech men (and women). For example, Ken Rathbun, who received his M.S. from M.I.T., has written a book titled: *Working Your Way Through College*. According to the Meriden, Conn., *Record* the feeling was "that Mr. Rathbun has done a wonderful service for adolescent youths and their parents." By the way, you can get the book for \$1.25 from the author, at Post Office Box 8587, West Hampton Station, Richmond, Va. Good work, Ken. During the summer Clarence Gregory taught evening courses in elementary calculus under the auspices of the Greenwich, Conn., Association for the Development of Scientists. Bob Pelletier was the recipient of a summer overseas scholarship awarded him by the Foreign Study Committee of M.I.T. Bob will continue his work toward his master's degree in Architecture at the Cambridge institution. Ken Walijarvi, who received his master's degree in Architecture at M.I.T., has recently been appointed assistant professor of architecture at the Washington University in St. Louis.

Paul Grady sent in a very informative letter. It arrived too late to make the July issue so I'll use portions of the news which are still pertinent. Paul says: "Jim Russell was with the Sawyer Construction Company, building the J. F. Dorrance Laboratory, but he has a new position by now. Tim Chisholm is technical sales director for the Teleflex Corporation in Philadelphia, and Don Pierce, who recently became a proud papa, is also in sales for Teleflex. Walt Brill is working for the Du Pont Construction Company at the Chambers Works in Deepwater, N.J. Jim Banister, Ray, McMartin, and Jim Shepherd are still touring the country with the U.S.A.F. Bill Benfer is in the Army Security Agency. Bill Griffiths is working for the Du Pont Textiles Division at Seaford, Del." Paul, of course, gave me news about his engagement; however, I have already received news of his marriage. Thanks, Paul, I hope in the future you'll find time to jot down a few notes of '51 people you have met or heard from. And may I extend further this invitation to all of you classmates to write, if only a few lines.

Other news: Ralph Romano sent in a note to report that he is still alive and really keeping busy. Ralph, is it the Air Force or other matters which keep you continually on the go? Gerry Burns reports that he may be in this neck of the woods soon to attend a wedding of one of our classmates. Information on this in the next issue. Marv Grossman is back at ye olde Harvard after a pleasant summer at sunny

(??) England. I'll have to get him to give us some details of his activities in that country. And if he doesn't give us enough details, why Art Wasserman, who will be at Oxford this fall, should be able to help us out. Has anyone heard from Tony Terrenzio? He is supposed to be working for the Creole Petroleum Corporation in Venezuela. Come on, gang, let's exchange news items. — STANLEY J. MARCEWICZ, *Secretary*, Gallatin D-25, Harvard Business School, Boston 63, Mass.

## • 1952 •

Rather than write some trite little opening and waste space, I think that I'll begin right off with news; '52 certainly made a lot of it over the summer.

I should first like to correct the record to say that Al Andrus is working for the National Broadcasting Company in television and not for the National Biscuit Company, as erroneously reported in the July issue. Pardon the mistake, Al; no harm was meant.

I suppose I should next put into print that part of my first column that was cut out of the July issue due to a lack of space. Here it is:

New York State (excluding New York City) will see Don Brown at Bell Aircraft in Buffalo; Bill Carson at I.B.M. in Poughkeepsie; (I've since heard rumors about Uncle Sam flirting with Bill); Tom Coe at the Art Metal Construction Company in Jamestown; Frank Fairbanks at the American Locomotive Company in Schenectady; Bob Hollenbach at the Corning Glass Works in Corning; Burge Jamieson at the Grumman Aircraft Corporation in Bethpage; Heinz Jans at Hellige, Inc., in Hempstead; Gerry Ellis, Harry Kradjian, Bill Lane, John Magarian, Arun Prasad, and Gene Scalera, all at General Electric in Schenectady; and John Schutt at the University of Rochester in Rochester.

In nearby New Jersey are the following: Paul Aldrich at Merck, Inc., in Rahway; Bob Boole at R.C.A. in Camden; Bill Chandler at Esso Standard Oil in Linden; Frank Dolan at the Federal Telephone and Radio Corporation in Clifton; "Leaky" Dyke at the American Cyanamid Company in Bound Brook; Jim Fitzgerald at Merck, Inc., in Rahway; John Gaylord at R.C.A. in Camden; Dick Heitman at Princeton University; Hon Lee at Federal Telephone and Radio Corporation in Clifton; Bill McKinley and Ted Maione at R.C.A. in Camden; Dick Powell at Vavoie Laboratories, Inc., in Morganville; Gerry Poirier at the Cooper Alloy Foundry Company in Hillside; Dan Shew at Merck, Inc., in Rahway; Hal Zoolalian at the Worthington Corporation in Harrison.

The following are locating themselves in Pennsylvania: Dick Ayers at Scott Paper Company in Chester; Lou Di Bona at Westinghouse in East Pittsburgh; Andy Ferenz at the United Engineers and Constructors, Inc., in Philadelphia; Connie Frey at the Bethlehem Steel Company in Bethlehem (I hear that the Army was also looking for him); Ken King at the Pennsylvania Salt Manufacturing Company in Philadelphia; Ray King at Westinghouse in Pittsburgh; Herm Knie-

riem at Sylvania in Towanda; Bill Kovacic at the Carnegie Institute of Technology; Chuck Lockerby and Bob Manning at Westinghouse in Pittsburgh; John Maxwell at Pennsylvania Water and Power in Holtwood; Dana Mayo at the University of Pennsylvania Graduate School in Philadelphia; Bob Moore at Bethlehem Steel in Bethlehem; Sundaresan Ramachandran at U.S. Steel in Pittsburgh; Don Sontag for Scott Paper in Chester; Charlie Springer for the Reading Tubing Corporation in Reading; and Fred Stengel for Westinghouse in Pittsburgh.

And now to continue our tour around the rest of the country, starting with New England:

Connecticut: George Bradley with the Bridgeport Brass Company in Bridgeport; Ed Child at Yale Medical School in New Haven; Bill Degnan at the Sikorsky Aircraft Company in Bridgeport; Alexander Dingee with the Fafnir Bearings Company in New Britain; Bob Jeffery with the Hamilton Standard Propeller in East Hartford; Al Kargl at the Fenn Manufacturing Company in Hartford; George Mellor with Pratt and Whitney in East Hartford; Ben Shaver at the Yale Medical School in New Haven; Bill Wardle with the Wilbert Burial Vault Company, Inc., in Orange (later reports indicate flirtation with the Army); John Warner with the Hamilton Standard Company in Windsor Locks; Harry Wenning with the Colonial Construction Company in Torrington.

Rhode Island: Ernie Capstack, Herb Kagen, and Bruno Vittimberga, all at the University of Rhode Island in Kingston. Vermont: Ron Chisholm and Kevork Nahabedian, both at the University of Vermont in Burlington. New Hampshire: Tom Pearson at the Portsmouth Naval Shipyard in Portsmouth.

The midwestern section of the country attracted quite a few of the members of our Class. The fair state of Ohio includes the following as new (or perhaps returning) residents: Norm Andrus with Goodyear Tire and Rubber in Akron; Steve Crosby at Procter and Gamble in Cincinnati; Jerry Hathaway with American Brake Shoe in Elyria; John Lynch with the Steel Founder's Society of America in Cleveland; Bob Maini with Goodyear Tire and Rubber in Akron; Tom Romanowski at the Case Institute of Technology in Cleveland; Mike Sapuppo with Goodyear Aircraft in Akron; Frank Staples with the Lincoln Electric Company of Cleveland; Jim Stolley with Procter and Gamble in Cincinnati; and Sheldon Thorpe with the same company in Cincinnati (by this time Sheldon is a second lieutenant down at Fort McClellan, Alabama, home of the Chemical Corps).

Reports show only the following two in Indiana: Marty Kay at Purdue University and Floyd Keirnan at the Capehart-Ellsworth Corporation in Fort Wayne. Illinois shows only the following graduate students: Lloyd Currie and Charlie Hecht at the University of Chicago; Hal Larson in Loyola Dental School in Chicago; and Bob Naber in Northwestern Medical School, also in Chicago.

In Michigan we have the following: Dave McFeggan with the Wyandotte

Chemicals Company in Wyandotte; Dave Kessel at the University of Michigan in Ann Arbor; Bill Smyth at the Chrysler Institute of Engineering in Detroit; Ralph Stahman in the Ethyl Corporation Research Laboratories in Detroit; Joe Tache with the Chrysler Corporation in Detroit; and Hal Tepper at the University of Michigan.

In "nearby" areas we can find the following people: Al Olson with the Price Erecting Company in Milwaukee, Wis.; Frank Hyson with the Marathon Corporation in Menasha, Wis.; Keith Johnson with Globe-Union, Inc., in Milwaukee; Chuck Bethel with Mallinckrodt and John Mello with McDonnell Aircraft, both in St. Louis; Hank Hohorst and Newell Trask at the University of Colorado in Boulder; Dean Wadsworth at the Colorado School of Mines in Golden; Elwin Messer for the Todd Shipyards in Seattle; Bob Arbuckle and Fred Fickenwirth for Boeing, also in Seattle; and Clyde Baker for the Oregon State Highway Department.

In the next issue I shall complete the swing through the country, including California, Texas, and all the Army and Air Force stations.

Engagements: Rita Haber and Gil Steinberg in Cedarhurst, Long Island; Mary Lofton and Connie Frey in Bronxville, N.Y.; Joyce Gorman and Dick Silverman in Providence, R.I.; Lydia Cloward and Art Heinzman in Puerto Libertador, Dominican Republic; Pat Taylor and Bill Lane in Montclair, N.J.; Nancy Angell and Dick DuBois in Randolph, Vt.; Phyllis Turner and Bud Yeager in Wayne, Pa.

Marriages: Halcyon Hobbs and Chuck Springer in Kingston, R.I., in late March (pardon the late coverage); Aileen Kliskey and Bob Couillard in Worcester; Barbara Smith and Fred Stengel in Beverly, Mass.; Carol Smith and Howie Mills in Lynn; Priscilla Steele and Dick Powell in South Sudbury, Mass.; Lycia Girard and Fred Mitchell in Syracuse, N.Y.; Therese Carey and Frank Sylvia in Brookline; Diana Gordon and Ken Jonsson in Pittsburgh; Lee Slocum and Al Thomasell in Malden, Mass.; Dorothy Burger and Jim Fitzgerald in Bayside, Long Island; Virginia Olivier and Art Howard in Winchester, Mass.; Patricia Palmer and Dick Wingerson in Rochester, N.H.; Mary Ann Martuccelli and Gene Scalera in Lawrence, Mass.; Elizabeth Morse and John Maxwell in Malden, Mass.; and Ruth Turnen and Herb Wilf in Philadelphia.

I've probably run out of space by now; so I'll close by again asking you all to send in pithy little items about what you are doing, whom you are seeing, who has invigiled you into an engagement or marriage, or about just anything. If you see any mistakes in the column or if there has been a change in your job status to perhaps a two-year career under Uncle Sam's tutelage, please write. Receiving mail is one of my last contacts with the outside civilian world as I am now down at Fort McClellan, Alabama, watching blisters from a mustard confidence test form on my arm. Since I am now subject to change of address with very short notice, please send mail to—STANLEY I. BUCHIN, *Secretary*, 150 Tryon Avenue, Englewood, N.J.





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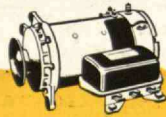
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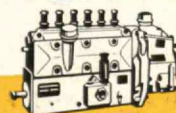
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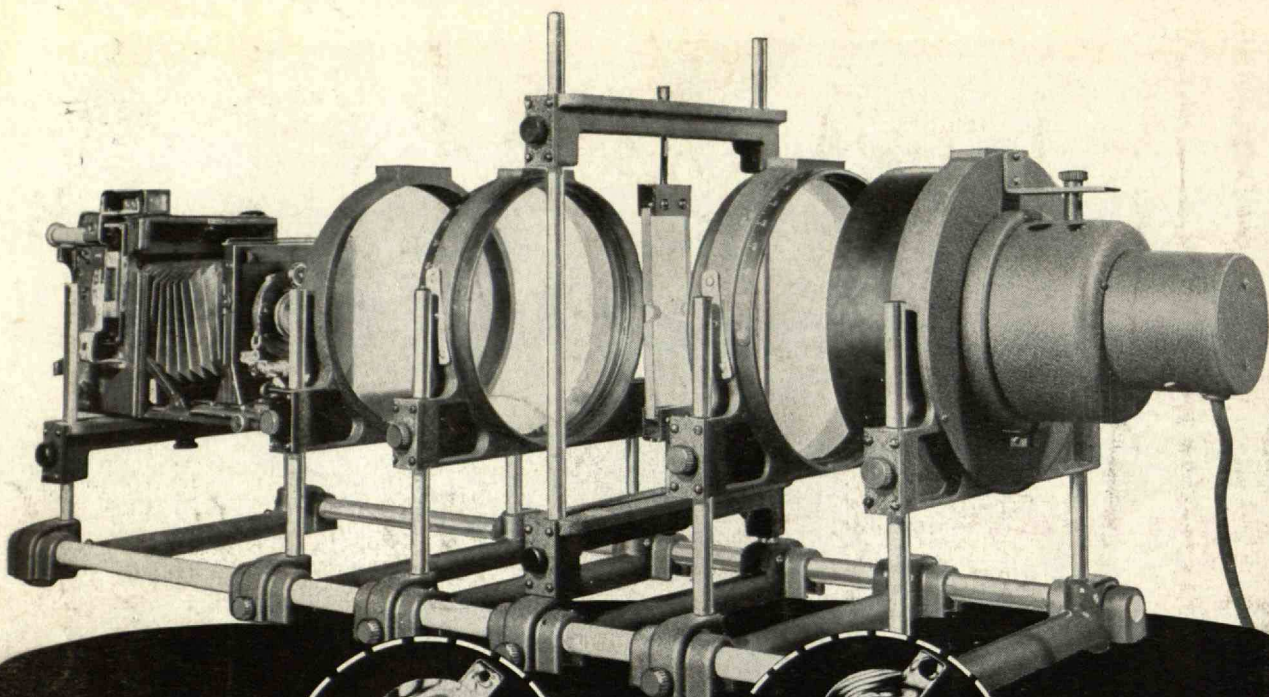


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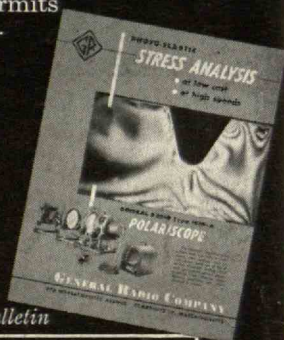
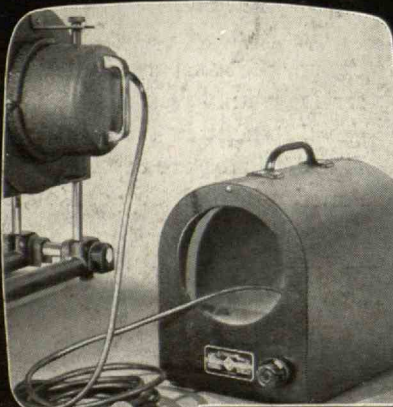
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